



COUNTY BOROUGH OF BOURNEMOUTH,
1911.

ANNUAL REPORT

OF THE
MEDICAL OFFICER OF HEALTH,
WITH WHICH ARE INCLUDED THE **REPORTS**
OF THE
BOROUGH BACTERIOLOGIST,
CHIEF SANITARY INSPECTOR,
AND
PUBLIC ANALYST.

BOURNEMOUTH:

Printed at the "Guardian" Office, Commercial Road,

COUNTY BOROUGH OF BOURNEMOUTH.

ANNUAL REPORT

OF THE

Medical Officer of Health

For the Year 1911.

Health Department,

Borough Offices,

Bournemouth.

February, 1912.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

Gentlemen,

I beg to present my report on the Health of the County Borough of Bournemouth during the year 1911.

The form and manner of the report are based on the requirements of the Order issued by the Local Government Board in 1910, and in order to facilitate systematic arrangement, the list of subjects concerning which the Medical Officer of Health is required to report by the Order is partly followed.

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE COUNTY BOROUGH.

Bournemouth is built on a sandy subsoil, the dry and porous nature of which makes it an ideal site for a health resort. The town is divided into two parts by the valley of the Bourne, which runs serpentine through the town to the sea; and numerous smaller valleys or chines also intersect the town, opening on to the free air of the bay.

Whilst the Chines add greatly to the natural beauty of the town they have also a very material influence in increasing its hygienic circumstance, for they serve as watersheds, carrying off the surface water from the rising ground and moisture that percolates readily through the sandy soil, so that the subsoil is kept always in a state of sanitary dryness. And the Chines serve also as channels through which the fresh sea air is carried into the heart of the town; in my opinion this is one of the main reasons for the fact that whilst the winter climate is mild, the summer temperature throughout the town is also temperate, a fact which is becoming more fully realised by visitors and which is clearly shown by the comparative meteorological records.

Geology.

To the north the town stretches away in open heath-land, interrupted only by belts of pine woods.

The site of Bournemouth may be described as belonging to the Bagshot Sands series; the subsoil is silicious sand and it is difficult to find any considerable outcrop of clay within fifty feet of the surface. The lower beds are of the middle Eocene period (Lower Tertiary) and have yielded a good supply of fossil pines and leaves.

One of the most marked physical features of the town is the amount of foliage therein. In addition to the Public Gardens, with their abundance of trees and shrubs, many parts of the town are built among trees which are mainly pines, although deciduous trees are also numerous. Pine Trees.

Whilst the thousands of pine trees in Bournemouth constitute a physical feature of great beauty, their effect is hygienic as well as aesthetic, for the emanations from the myriad pine needles have an undoubted purifying effect on the atmosphere.

The policy of the makers of modern Bournemouth has been to retain the trees wherever possible, and young trees are continually being planted. It is well that a County Borough of 80,000 inhabitants should make every effort to retain such a valuable asset as this.

SOCIAL CONDITIONS OF THE COUNTY BOROUGH.

This subject specified by the Local Government Board in connection with the "chief occupations of the inhabitants" as matter for report by the Medical Officer of Health may be dealt with negatively; there is practically no great industrial occupation in the town.

Coincident with the growing reputation of the town as a health resort and largely as a result of that reputation, its permanent population has increased chiefly by the immigration of well-to-do residents who have sought and found in the town rest and enjoyment after a strenuous business or professional life, or who have come to Bournemouth in order to give their children the educa-

tional advantages among health-giving and beautiful surroundings which the excellent Private Schools offer.

There is also a large number of people who come to live in Bournemouth for many months of the year, either in Boarding Houses or Private Apartments, and there are also the people who come for holidays of shorter duration.

As a result of the increasing number of the resident-class an increasing number of the population is employed in or in connection with the building trade; as a result of the increasing number of visitors an increasing number of the population is employed to cater for their wants in connection with the Boarding-Houses and Laundries.

There is thus no particular occupation which has any marked deleterious effect on the public health of the community.

DEVELOPMENT OF THE TOWN.

Although the early history of Bournemouth was connected intimately with the suitability of its climate for the treatment of tuberculosis, its more recent development has been due largely to the beneficial effect of its climate on a wide range of diseases and on its attractions as a health and holiday resort. Whereas in 1884 (when Robert Louis Stevenson sought relief in our climate from the infliction of Tuberculosis) the reputation of the town rested mainly on its beneficial effects on the disease, there has been a gradual growth of the realisation that the climate and the special natural circumstance of Bournemouth have a wider field of utility in therapeutics. And at the present time there is a recognition alike in the lay and the

medical mind that Bournemouth offers healing powers for ailments apart from, and in addition to, “ chest ” diseases.

POPULATION AND AREA.

The population of Bournemouth was estimated by the Registrar-General as 79,150 in the middle of the year 1911.

The area of the County Borough at the present time is 5,850 acres.

The average distribution of the population, therefore, is 13.5 persons per acre.

NEW BUILDINGS.

Five hundred and thirty-eight new houses were erected in the County Borough during 1911; and there were 131 “ large additions ” to existing buildings. The following table shows the number of new buildings erected in Bournemouth during the past ten years:—

Year.	New Houses.	Large Additions, Stables, Workshops, and other Buildings.	Total.
1901	200	122	322
1902	294	99	393
1903	436	120	556
1904	440	106	546
1905	479	103	582
1906	493	98	591
1907	522	103	625
1908	549	90	639
1909	566	79	645
1910	536	156	692
1911	538	131	669

MORTALITY RATE.

During 1911, 1,020 deaths were registered in the district, and of these 174 were deaths of non-residents. There were 89 deaths of Bournemouth residents registered elsewhere and transferred to the Bournemouth statistics. The nett deaths belonging to the district thus numbered 935, a Death Rate of 11.8 per 1,000 population.

In the following table the calculation basis differs from that of all previous years; the new regulations concerning transferable deaths came into force during 1911, so that the table cannot be used as a comparative record of various years. It is obvious also that the rates, based on an estimate of the population in the inter-censal years, are unreliable as a comparison factor :—

(Table 1. L.G.B.)

Vital Statistics of Whole District during 1911 and previous Years.

Basis of calculation in 1911 differing from that of previous years.

Year.	Popula- tion esti- mated to Middle of each Year	Births.			Total deaths registered in the District		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.				Of Non-residents registered in the District.	Of Residents not registered in the District.	Under 1 year of age		At all Ages.	
			No.	Rate	No.	Rate.			No.	Rate per 1000 Nett B'ths	No.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1906	67700	1197		17.68	971	14.34			145	121.1	780	11.52
1907	73441	1206		16.42	827	11.26			94	77.94	619	8.42
1908	76527	1120		14.63	934	12.20			106	94.64	728	9.51
1909	79288	1203		15.17	909	11.46			110	91.43	728	9.18
1910	81812	1276		15.59	871	10.64			93	72.88	688	8.40
1911	79150	1201	1228	15.51	1020	12.88	174	89	121	98.54	935	11.81

Area of District—5,350 Acres.

" *exclusive of area covered by water—5,742.*

Census, 1911. Total population, all ages—78,677.

BIRTH RATE.

The Bournemouth Birth Rate for 1911 was 15.51*, calculated on the number of births per 1,000 population. The rate of England and Wales for 1911 was 24.4 and the low Birth Rate of Bournemouth is due to the nature of its population, which includes many residents who seek in the health and beauty of the town a pleasant resting-place for the evening of their days.

A representative Birth Rate should be calculated on the number of births per 1,000, not of the population, but of the women of child-bearing age in the community, and it is obvious that such a corrected rate for Bournemouth would not be relatively so low. The problem of the diminishing Birth Rate of the country is apt to be viewed with consternation, but the concomitant decrease of infantile mortality should not be lost sight of; indeed, there is little doubt that nature is working in her infinitely adjustive manner, and the civilised life which results in a diminished relative number of infant deaths results also in a diminished relative number of births in the community. This concomitant variation is well instanced in Bournemouth, whose Birth Rate (births per 1,000 population) is one of the lowest in the country, and whose infantile mortality (infant deaths per 1,000 births) has been almost the lowest among the large towns during the past ten years.

Because there is less wastage of infant life there is, therefore, less need for the too frequent stress of motherhood, and an ever present adjustment appears to be going on between the Birth Rate and the Death Rate of the community.

*Corrected Rate: based on the Registrar General's statement of number of births.

The Bournemouth Birth Rate for the past ten years is:—

1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
16·11	17·6	17·2	16·3	17·6	16·5	14·7	15·1	15·59	15·51

The figures for 1902-10 are taken from my predecessor's report for 1910.

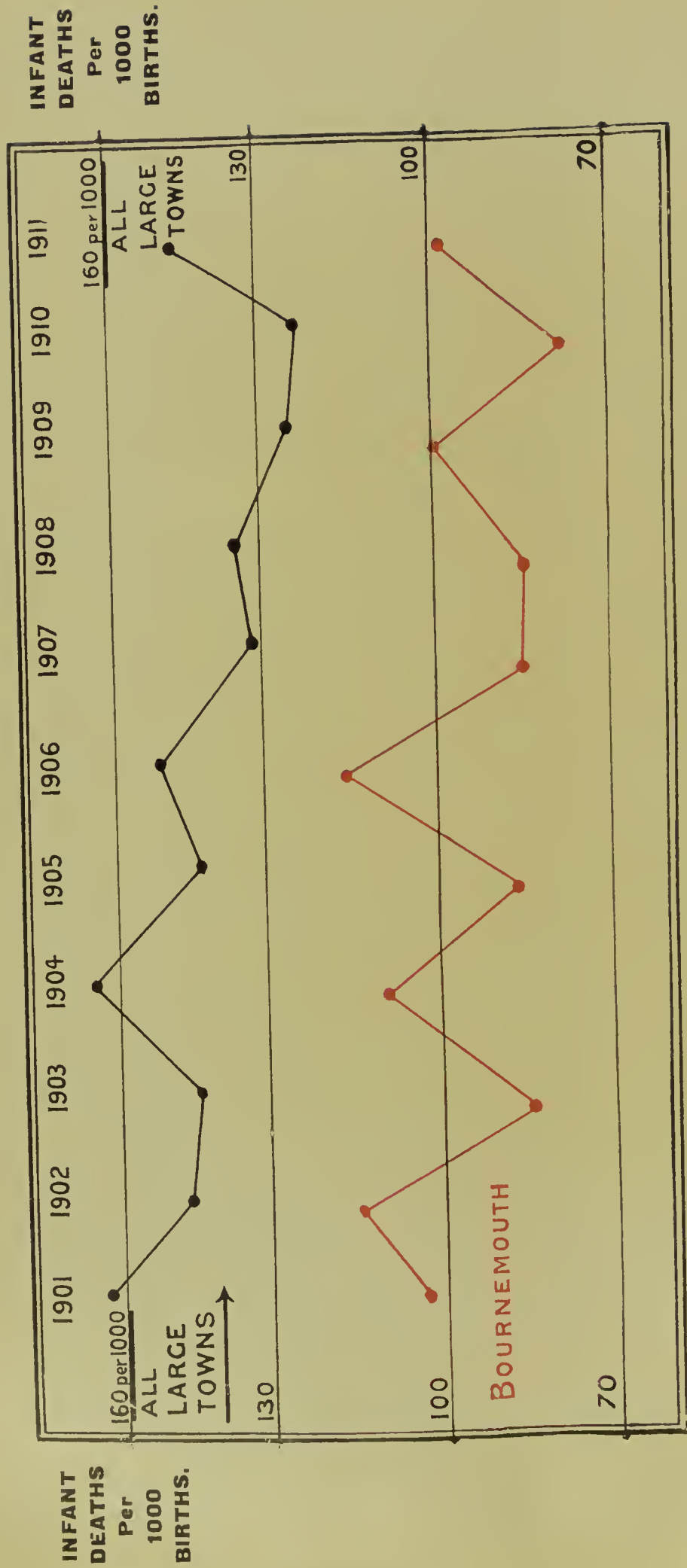
INFANTILE MORTALITY.

The "Infantile Mortality" of a district is the ratio of the number of infants dying in the first twelve months of their life to every 1,000 births in the district for the same period.

In all places the infantile mortality varies from year to year within very wide limits; and one of the main causes of this *variation* is the meteorological condition of the summer months; its significance is referred to in a later paragraph. There are, however, various other factors which are constant over a period of years in determining the amount of infantile mortality in a district; absence of overcrowding, efficient sanitation, and frequent removal of house refuse have always a definite effect in lowering the relative infantile mortality of a district and the sequence of cause and effect is well shown in Bournemouth, where the low relative infantile mortality during the past 15 years has given the County Borough one of the finest records among the large towns.

Poverty.

There is a factor which influences deleteriously the rate of infantile mortality: poverty, which is accompanied not only by the inability to provide suitable and efficient sustenance for the artificially fed infant, but also by a lack of knowledge as to the proper and hygienic methods of feeding the infant. But statistics show that the Birth Rate among the poorer and the poverty-stricken classes is greater than among the richer classes, and the infantile mortality of a town is calculated, not on



INFANTILE MORTALITY : *Annual Infant Deaths per 1000 Births.*

NOTE.—Basis of Calculation—Registrar-General's Records.

its population, but on its number of births; therefore, in seeking for an explanation of the low infantile mortality of Bournemouth the main factors are obtained in the efficient cleansing and sanitation of the town, the frequent removal of house refuse, and the general healthy nature of the County Borough.

It has been stated that relatively to the other large towns the infantile mortality of Bournemouth is very satisfactory, but in considering it as an absolute problem, we cannot remain satisfied with the present rate of infantile mortality, although it is relatively so low.

There is no cause which produces a greater increase in the infantile mortality in any one year than a hot summer. Continued summer heat results, almost inevitably at present, in a rapid rise in the number of cases of Infantile Gastritis and Diarrhœa, a disease which in 1911 was the cause of nearly 50 per cent. of all deaths under 12 months. The exceptionally hot summer of 1911 is recorded, therefore, in the exceptionally high infantile mortality rate for 1911 throughout the country; all places have suffered, but those places which have no slums and are efficiently sanitated have suffered less. And so during the hot summer year 1911, the infantile mortality of Bournemouth, although it has increased, is far more satisfactory than that of the large towns.

It has been stated that the increase of the infantile mortality during a hot summer is due to the great increase in Infantile Gastritis and Diarrhœa.

The problem of infantile mortality, therefore, is largely the problem of this fatal disease among infants, and the administrative efforts to reduce the mortality among the very young children must be concentrated largely on the prevention of the disease. There are two facts which loom large in the problem:—

(1) That the proportion of breast-fed babies who fall ill with the disease is far less than that of artificially-fed babies.

(2) That there is a regrettable amount of ignorance among the poorer mothers as to the right way to bring up the artificially-fed baby. The cow's milk given is often unsuitably diluted, the feeding-bottles are often dirty and harbour germs which bring on the disease in question, and there is no doubt that this ignorance which exists among even the kindest mothers is partly responsible for the deplorable amount of mortality among infants.

Nature intended young infants to be breast-fed; the economic and other conditions which render this impossible in so high a proportion of the poorer children need not be discussed here, but the fact has to be realised that the artificially-fed child starts life with a handicap which is increased greatly by the ignorance of the mother as to the best method of feeding the infant artificially.

This is one of the main points of the problem in Bournemouth. The good sanitation and the absence of slums have resulted in a comparatively low infantile mortality; the improvement in the

feeding of the artificially-fed baby and in the general care and management of the infant will result in a still lower infantile mortality, and the following are the methods by which it is hoped this improvement will be brought about in Bournemouth:—

(1) Instruction is now being given in all the Elementary Schools to the older girls in the care and management of infants. The wisdom that sees in the child the future citizen would instruct early the future mothers of the race concerning the care of infants.

(2) Mothers who are the wage-earners frequently have to leave their young children to the care of a neighbour; a Day Nursery has been started by the Mothers' Aid Society, where these infants may be left daily, and as the Nursery is under skilled supervision, the infants are efficiently cared for and suitably fed. It is probable that in time the Day Nursery will be multiplied and older School girls will be instructed in infant care by the experienced Matrons.

(3) In addition to the advice which the School Nurse and Health Visitors of the Health Authority give to the mothers in the homes considerable efforts are made in this direction by the voluntary workers of the Bournemouth (Voluntary) Health Association, three Mothers' Welcomes having been established where the mothers are instructed in the feeding and the care of infants.

(4) Since the introduction of the Midwives Act of 1902, there has been a gradual improvement in the average midwife, and there is no doubt that in time the Maternity Nurse will be thoroughly well trained and will, by intelligent

advice to the mothers, be a potent factor in the reduction of infantile mortality. The supervision of Midwives in Bournemouth is dealt with in a later section of this report.

(5) The supervision of the milk supply, which also is dealt with elsewhere in this report.

The
importance
of the
subject.

These are some of the methods whereby Bournemouth is attempting to decrease its comparatively low infantile mortality. It is easier to reduce a high mortality to a moderate mortality than to decrease further a low mortality, but the subject is one of such great importance nationally that the more difficult problem requires to be dealt with.

The fact that so many children die before they reach the age of 12 months has a wide significance, for the conditions and ailments that killed these infants have also damaged the survivors; so that in our efforts at reducing infantile mortality we are also endeavouring to rear the survivors free from the handicap of weakness which is the result of these conditions and ailments.

There is here no problem of the "survival of the fittest," for the resistance of a child to the germs of Gastritis cannot nowadays be taken as a criterion of its fitness to live; moreover we wish to raise a race undamaged in their early years by the attacks of such a disease. Hitherto, Bournemouth because it has had almost the lowest infantile mortality among the large towns, has not adopted the Notification of Births Act, nor do I think the present time expedient for its introduction, but the time may soon arrive when the Health Authority may consider advisable the organisation of a fuller

campaign against the rate of infantile mortality, and the town's fine record will be rendered finer yet.

And the object in view is not only the prevention of the wastage of infant life and of the damage to the surviving child and therefore to the future citizen; there is also the wish of civilized humanity that the burden of motherhood shall be less in vain.

It has been stated that this notification has hitherto not been adopted in Bournemouth, and that the present time is not expedient for its adoption. This latter opinion has been formed with a knowledge of local conditions and after due consideration of facts which are neither given in this report, nor in the possession of the general public.

Notification
of
Births.

TABLE No. 4 (L.G.B.).
INFANT MORTALITY.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

Cause of Death.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total deaths under 1 year.
All causes } Certified.	—	—	—	—	43	—	—	—	—	121
} Uncertified.	—	—	—	—	—	—	—	—	—	—
Small-pox ...	—	—	—	—	—	—	—	—	—	—
Chicken-pox...	—	—	—	—	—	—	—	—	—	—
Measles ...	—	—	—	—	—	—	—	2	—	2
Scarlet Fever ...	—	—	—	—	—	—	—	—	—	—
Diphtheria and Croup...	—	—	—	—	—	—	—	—	—	—
Whooping Cough ..	—	—	—	—	—	—	—	—	2	2
Diarrhœa ...	2	—	—	1	3	5	15	8	10	41
Enteritis ...	—	—	—	—	—	2	2	2	—	6
Tuberculous Meningitis	—	—	—	—	—	—	—	—	1	1
Abdominal Tuberculosis	—	—	—	—	—	—	—	—	—	—
(b) ...	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Dis-	—	—	—	—	—	2	—	—	2	4
eases ...	—	—	—	—	—	—	—	—	—	—
Congenital Malforma-	—	—	—	—	—	—	—	—	—	—
tions (c) ...	1	1	—	—	2	1	—	—	—	3
Premature birth ...	17	4	—	1	22	2	—	—	—	24
Atrophy, Debility and	—	—	—	—	—	—	—	—	—	—
Marasmus...	4	—	—	—	4	1	2	3	1	11
Atelectasis ...	1	—	—	—	1	—	—	—	—	1
Injury at birth ...	2	—	—	—	2	—	—	—	—	2
Erysipelas ...	—	—	—	—	—	—	—	—	—	—
Syphilis ...	—	—	—	—	—	—	—	—	—	—
Rickets ...	—	—	—	—	—	—	—	—	—	—
Meningitis (not Tuber-	—	—	—	—	—	—	—	—	—	—
culous) ...	—	—	—	—	—	—	—	—	—	—
Convulsions ...	—	—	—	—	—	1	—	—	—	1
Gastritis ...	—	—	—	—	—	—	—	—	2	2
Laryngitis ...	—	—	—	—	—	—	—	—	—	—
Bronchitis ...	—	—	—	—	—	—	1	—	—	1
Pneumonia (all forms)...	1	—	1	—	2	1	1	1	3	8
Suffocation, overlying...	—	—	—	—	—	—	—	—	—	—
Other causes...	5	1	1	—	7	2	—	2	1	12
	33	6	2	2	43	17	21	18	22	121
Nett Births in the year ...	1228.				Nett Deaths in the year ...				121.	

INFECTIOUS DISEASES.

Whilst the low rate of infantile mortality may be taken as an indication of efficient sanitation in the town, the low rate of mortality from notifiable infectious disease is an indication both of the high standard of hygiene and also of the promptness and adequacy of the health-control of the County Borough.

The following table of the mortality from the notifiable diseases includes the deaths from the six ailments which have been notifiable during the whole of the period 1904-1911.

DEATHS FROM NOTIFIABLE INFECTIOUS DISEASES.

Year.	Small Pox.	Diphtheria.	Scarlet Fever.	Enteric Fever.	Puerperal Fever.	Ery- sipelas.	Total.	Deaths per 1,000 pop- ulation.
1904	0	7	1	1	1	4	14	0·21
1905	0	15	1	1	0	1	18	0·27
1906	0	5	0	2	0	1	8	0·11
1907	0	7	1	2	0	1	11	0·15
1908	0	11	2	2	1	0	16	0·22
1909	0	9	3	0	1	4	17	0·21
1910	0	11	1	0	0	2	14	0·17
1911	0	5	0	1	1	1	8	0·10

In a rapidly growing town it is remarkable that the rate mortality from the notifiable infectious diseases during 1911 was lower than it had been for many years. Whilst this indicates that the growth of a town need not influence deleteriously its zymotic record as far as the notifiable diseases are concerned, it must be remembered that the non-notifiable diseases such as Whooping Cough and Measles demand a very large measure of supervision.

The latter disease is mentioned under its heading, and the problem of its periodical attacks on the younger children of the community referred to. During 1911 the condition necessitated resort to the

Article 45b of the Education Code in 12 instances. The School control of Infectious Disease is referred to under its heading in a later section of this report.

SCARLET FEVER.

There was no death from Scarlet Fever in Bournemouth during 1911.

Although no town in the country can be free from the introduction of disease, the effective methods of a Health Authority can minimise the spread of the disease. During 1911, 94 per cent. of the cases of Scarlet Fever were immediately removed to the Isolation Hospital on their notification by the Medical Attendant, and persons in contact with the patients were supervised, and if the patient had attended a school, the school and class were kept under supervision.

A health resort can offer few better recommendations than the fact that during the year it had no death from Scarlet Fever. The supervision of all contact cases involved a large amount of work, more particularly in the Elementary Schools, but the result fully justifies the expenditure of labour. The supervision of contacts referred to again under the next heading, was started in each case on the telephone message of the Medical Attendant; the case was promptly removed to the Isolation Hospital, and the Ambulance Nurse accompanying the case brought information as to the contacts in the school class of the patient. I believe that this early information obtained by the Medical Officer has resulted not only in the low incidence of the disease, but also in the fact that Bournemouth has had no death from Scarlet Fever during 1911.

DIPHTHERIA.

In a population of nearly 80,000, 39 cases of Diphtheria were recorded during 1911, an incidence of .004, probably the lowest among the large towns. In Bournemouth, which during the past decade has had one of the finest records in freedom from Infectious Diseases, this is the lowest record for many years. The number includes many slight cases, and some instances of "carrier cases," who were not actually suffering from the disease, but were notified because they harboured the germ of Diphtheria in the throat or nose. These "carrier" cases, referred to in a later paragraph, were supervised and treated, not because they were suffering, but because otherwise they might have spread the disease.

This supervision of the disease, which protects our children from the risk of infection and offers to visitors the smallest chance of infection of any town of the size of Bournemouth in the Kingdom, is based largely on bacteriological work. And as the work is typical of that which is done in all infectious cases which may be introduced into the Borough, the methods are here indicated.

Absolute reliance on the efficiency of the work carried on under the supervision of the Chief Sanitary Inspector is always necessary, and I would here pay a tribute to the accuracy of that work, both in the preliminary investigation and disinfection, which enables modern medical and scientific methods to be applied to the greatest effect.

If any case of Infectious Disease is introduced into the County Borough the case is immediately isolated, and all children who have been in contact with the case are supervised. If it is a case of Diphtheria, house contacts are swabbed, and the throat

or nose swabs subjected to bacteriological examination, and the same system is applied to the school contacts if the child has attended school. Any "carrier" case discovered thereby is isolated and supervised until there is definite proof that there is no infectivity. No town in a civilized community can be certain that an infectious case will not be introduced into its midst; but it rests with every town's Health Administration to prevent the spread of disease.

As an instance of the supervision of the Health Authority, the control of Diphtheria in 1908 may be instanced. The disease was brought into the town and the Elementary Schools in 1908 and the Education Authority determined that its spread should be prevented. Because there were cases in the Schools, full investigations were made by the School Medical Officer, bacteriological specimens from the throats of contact children were made, and also from the pencils used by the children in the Schools, with the result that every child in the Elementary Schools of the Borough was provided with separate pencils and pencil boxes. The risk of the spread of infection was thereby limited, and the County Borough continued its fine position among the large towns for freedom from Infectious Disease.

School
Pencil
Boxes.

Although the provision of pencil-boxes for each child in the Schools had an undoubted effect at the time in checking the disease in 1908-9, the system cannot be relied upon, for the instinct of barter appears to be strong in children, and pencils, etc., are frequently exchanged; moreover, the teachers cannot give sufficient supervision to the "one child, one pencil box" system. Therefore, medical and bacteriological supervision of the School classes is necessary, and the combination of all the methods has, I believe, contributed to our

freedom from Diphtheria during 1911, in which year both the incidence and the Death Rate per 1,000 population were the lowest for at least twelve years.

ENTERIC FEVER.

During 1911, Bournemouth continued the record which it has always had for comparative freedom from this disease. In a population of 79,150, only nine cases of the disease were notified, and these included three cases which were very doubtful of diagnosis. All the cases had contracted the disease away from Bournemouth and there was in no case any infection transferred within the County Borough.

MEASLES.

This disease was compulsorily notifiable in Bournemouth from 1903 to 1908.

There is no infectious disease in which the care of the child patient so largely determines a favourable issue, and it is not surprising, therefore, that the case mortality and the incidence of complications are much greater among the poorer children who are nursed at home.

The disease is apt to be regarded as much less dangerous than it really is, and in a comparatively large proportion of cases occurring among the poorer people, no Medical Attendant is called in. It is these cases which a Health Authority wishes to obtain knowledge of, for where no doctor is in attendance the patient is less likely to be properly cared for during the disease. But in a system of notification by medical men these important cases

would be missed; no doctor has attended them, so that the compulsory notification of Measles by doctors is comparatively little advantageous as far as the individual patient is concerned. And as the disease is almost entirely air-borne and, therefore, not so amenable to control by Public Health methods, the notification of the medically attended cases was not of considerable advantage in the protection of the public health.

The end to be desired is to obtain information concerning the cases which are not receiving medical attention, so that the mothers of the child-patients may be visited by the Health Nurses and advised as to the great need of care of the patient. This information is obtained by the Medical Officer (1) from the School Attendance Officers; (2) from the Head Teachers; (3) from the Health Nurses who visit the absentees from School when cases of the disease have occurred.

Measles is the only disease on account of which it is found desirable to close Schools or departments, and this necessity results from the rapidity of the air-borne infection, the long incubation period and the infectivity of the stage of onset.

ERYSIPELAS.

During the year 34 cases of this disease were notified; in no case was it possible to trace any connection of one case with another, and it can be stated with a fair degree of certainty that infection was not spread from any one of the cases.

Whilst in past years, when the principles of surgical antisepsis and asepsis were little known, the compulsory notification of the disease was necessary; at the present time the need of such

notification appears to be less urgent, nor is there a definite standard on which the diagnosis of the disease may be made.

Although the confines of the disease are vague, and the basis of diagnosis variable, there is still a very material advantage which may accrue from its notification. This is the supervision of a midwife who may have been in contact with a case, and such a requirement, which occurred during the year, sufficiently justifies the continuance of the compulsory notification of Erysipelas until such time as the supervision of the Midwives will become as satisfactory as their efficiency not only in the knowledge of child-birth, but also in the knowledge of the great laws of hygiene.

In view of the diminishing Birth Rate of the country, any administrative activity which may diminish the risk of motherhood is worthy of consideration.

TABLE No. 2 (L.G.B.).
Notified Diseases.

Notifiable Disease.	At all Ages.	No. of Cases Notified.						Total Cases Notified in each Locality.					Total cases removed to Hospital.
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	1	2	3	4	5	
Small-pox ...	...	—	—	—	—	—	—	—	—	—	—	—	—
Cholera ...	...	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria (including Mem- branous Group ...	...	—	7	24	3	4	1	3	15	9	5	7	32
Erysipelas ...	...	34	1	1	3	2	7	6	13	3	5	7	—
Scarlet Fever ...	...	101	1	24	57	12	5	12	26	2	32	29	94
Typhus Fever ...	...	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever ...	...	9	—	2	4	2	1	—	1	3	2	3	5
Relapsing Fever ...	...	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever ...	...	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	...	6	—	—	—	2	4	4	—	—	—	2	—
Plague ...	...	—	—	—	—	—	—	—	—	—	—	—	—
Phthisis {	Under Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—
	Regulations, 1908	38	—	2	3	24	7	9	5	3	13	8	—
	Under Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—
Totals	Regulations, 1911	48*	—	4	10	28	6	4	12	6	12	14	—
	...	275	2	32	92	36	74	38	72	26	69	70	131
	...	275	2	32	92	36	74	38	72	26	69	70	131

* There were also 11 notifications of patients who were away from Bourne-mouth.
There were 416 notifications transferred to other areas under these regulations.

SCHOOL MEDICAL INSPECTION.

The report of the School Medical Officer for 1911 has been already presented to the Education Authority.

The report was based entirely on the requirements of the Board of Education concerning the reports of the School Medical Officers, and it therefore included, as required, a statement of the various voluntary efforts for the welfare of the children and of the various factors affecting their health.

There is inserted here an account as required by the Local Government Board of the co-ordination of the work of the Public Health and the School Medical Departments.

Whilst for a brief period after the work of School Medical Inspection had been organised in 1908, it was carried on separately from that of the Health Authority, the two systems were soon successfully dovetailed so that both systems benefited. The Medical Officer of Health is at present School Medical Officer, and also personally carries out the medical inspection of the children. So intimately connected is the health of a community with the health of the children thereof that unification of the Public Health and the School Medical services appears to me to be the only basis on which efficiency and smoothness of working can be obtained; and although this is more evident in the control of Infectious Disease there are numerous other ways in which the present unification of the two Departments results in efficiency on account of fuller information and more complete control, and in economy by the saving of overlapping. This is evidenced clearly by the increasing cross-references in the various card index systems; for instance, a confidential information card concerning a parent

notified to the Medical Officer of Health as a Phthisical case results in the reference being marked on the School Medical cards of the children of the parents if there are any in the Elementary Schools. Although there is in Bournemouth not only co-ordination of the work of the Medical Officer of Health with that of the School Medical Officer but also identity of the individuals, there is a question arising in connection with School Medical Inspection which is better dealt with in a Public Health report: that is, the Epidemic Grant.

The
Epidemic
Grant.

This Grant was introduced in 1892, and discontinued in 1903. The Board of Education during these intervening years were empowered to make a special grant in certain cases where the exclusion of children from school for the purpose of preventing the spread of infection diminished seriously the average attendance. By the removal of this grant the Education Authorities were deprived of compensation for money loss resulting from the scientific attempts at preventing disease. The exclusion and supervision of individual children, and the medical supervision of children in the affected schools are very much more effective methods of preventing the spread of Infectious Disease than school closure. This is the opinion of the leading experts in zymotic diseases concerning nearly all Infectious Diseases except Measles, and it is evidenced by the fact that during 1911 the incidence of Diphtheria in Bournemouth Schools has been lower than it had been for many years, a result which I am of opinion is due to the system of supervision and contact control in the schools and homes since 1909.

But although these methods are more effective (except in the case of Measles), the early closure of a school when any Infectious Disease occurs is more economical for the Education Authority, for

they obtain their grant on the closed school but not on the "excluded and supervised" child.

It is not more economical from the Public Health point of view; nor is it economical in the matter of child life.

And so, in his attempts to limit the spread of disease and to diminish child mortality the Medical Officer is in the anomalous position of causing a reduction in the monetary grant of the Education Authority.

The recall of the "Epidemic Grant" appears to me to be desirable.

CONTROL OF INFECTIOUS DISEASE IN THE SCHOOLS.

(a) Notifiable Diseases.

As a result of the unification of the Health and School Medical Departments it has been possible to obtain fuller and more prompt information concerning the existence of any infectious diseases which may occur in the Schools; and this has been followed by a more adequate control of the spread of infection in the schools.

If an Elementary School child is notified to the Medical Officer of Health as suffering from an infectious disease, the Education Secretary is informed of the fact and the parents are instructed that no child shall attend school from that house until 14 days after the removal of the patient to the Hospital and the disinfection of the house, a completing notice being sent to the Education Secretary and to the Head Teacher of the School on the expiration of 14 days.

The earliest possible information concerning a notified infectious case in an Elementary School child is received from the Medical Practitioner by the School Medical Inspector in his capacity as Medical Officer of Health; the school department and class, if any, of the patient is obtained by the Hospital Nurse who accompanies the patient in the ambulance to the Hospital; and the class and school are put under immediate supervision. Contact children are watched, and if any show signs of sickening for the disease they are excluded from school at the earliest stage and are visited by the School Nurse or Health Visitor, unless or until a Medical Practitioner takes the case in hand. These children do not return to school until it is quite clear that they are free from infection.

It has been proved beyond doubt that Infectious Diseases are spread, in the large majority of cases, by children who are about to sicken for the disease, or who have the disease in such a mild form that they are undiagnosed. Both are contagious, and the class and school supervision described has frequently proved most valuable in the prompt removal of such children from the class and the prevention of the spreading of the disease. If a case of Diphtheria has occurred in a school child the same supervision in the class is carried out; any child who has even slight pharyngeal congestion or discharge is swabbed, and the finding of the Klebs-Loeffler Bacillus in the culture is followed by the exclusion and supervision of the child concerned.

A notice is sent to the Education Secretary and one to the parent when any child is thus excluded. If the child is not notified by a Medical Practitioner as a true case, and if the supervision has proved that the child has not developed the disease, a notice is sent to the Education Secretary and to the

Head Teacher, when, in the opinion of the School Medical Inspector, the child may safely return to School.

In the exclusion mentioned considerable attention is given to those children who are suffering from Otorrhea and Rhinorrhea. The infection of the two diseases referred to lingers very long in these discharges.

(b) Non-notifiable Infectious Diseases.

The information concerning the notifiable diseases is full and accurate, for the primary information is received from a Medical Practitioner, and moreover each case is fully investigated as to origin, etc., by an experienced Sanitary Inspector.

Although these advantages are lacking in the case of non-notifiable infectious diseases it is found possible to carry out a good deal of supervision in the schools. When the first case of non-notifiable infectious disease occurs in the School the Head Teacher communicates with the Medical Officer of Health; if any child is away from school on account of a non-notifiable disease (Measles, Mumps, Whooping Cough, and also Ringworm, etc.) the District School Attendance Officer reports on a form to the Medical Officer of Health. The School Attendance Officers also send information from time to time concerning absentee children who *appear* to be suffering from one of the non-notifiable infectious diseases, but who are not attended by a Medical Practitioner.

It will thus be seen that if a case of Infectious Disease occurs in the Borough, information may reach the Medical Officer from many sources: from the Medical Practitioners, from the Sanitary Inspectors, Health Visitors, and School Nurse, and also from the Teachers and Attendance Officers.

And if a case of Notifiable Infectious Disease occurs in the case of an Elementary School child (and 98 per cent. of these are promptly removed to the Sanitary Hospital), there is prompt supervision of the School Class as well as the home, for the Ambulance Nurse obtains the preliminary information when she takes the patient to the Hospital.

PULMONARY TUBERCULOSIS (CONSUMPTION).

Compulsory Notification Orders (Local Government Board).

(a) *Poor Law Cases* (1908).

(b) *Institution (Hospital) Cases* (1911).

(c) *General Compulsory Order coming into operation January 1st, 1912.*

Reference has been made already in this report to the remarkable change of Bournemouth from a Tuberculosis Resort to a General Health and Holiday Resort. But its present world-wide reputation as a "city of health and beauty" was preceded by its reputation as a suitable place for the treatment of Tuberculosis, and the disease is therefore of great importance in a consideration of the public health of the County Borough.

The change referred to, which is realised by all who have known the town during the past 30 years, is strikingly proved by statistics: whereas the Phthisis mortality of the whole country during the past 20 years has been reduced by 30 per cent., that of Bournemouth has been reduced by 67 per cent.*

*Calculation : *Registrar-General's Returns for England and Wales, M.O.H.'s Returns for Bournemouth.*

It is evident, therefore, that the question of Tuberculosis is of lesser interest to Bournemouth than it would have been 30 years ago; but the question is still of great importance, and the administrative work of this disease is therefore dealt with in this report.

(a) Poor Law Phthisis Cases.

During the year 1911, forty-one cases of Phthisis were notified to the Medical Officer of Health under the Poor Law (Tuberculosis) Order of 1908, as being resident in Bournemouth. These cases have been the subject of previous private reports to your Health Committee, and the present report is based on the more detailed information given therein.

All the cases notified have been visited and supervised, advice has been given with a view both to the well-being of the individual patient and the protection of the adults and children who may be in immediate contact with the patient; and such measures as disinfection have been freely utilized in order to protect the individuals in contact with the actual cases.

But I would take this opportunity of emphasising the opinion previously expressed to your Committee, that the more efficient method of dealing with the *advanced and infective* cases among the Poor Law patients is isolation in Phthisis wards.

This is not a question which affects intimately the visitors to a Health Resort; none of our visitors come into contact with these cases. The problem is one solely of the protection of the poorer relatives who are in "contact" with the patients, more particularly of the poorer children, who should surely be freed from the risk of contracting the disease.

Some of the cases notified are comparatively non-infective; but there are some who are in the advanced and infective stage who should be isolated in Phthisis wards; many of the former are wage-earners, they are comparatively non-infective; the latter are not wage-earners: their *advanced* disease prevents them from working, and their *advanced* disease renders them infective. And these latter cases should be isolated.

The Board of Guardians have provided isolation wards and facilities for institution treatment, but still there are cases remaining at home in an advanced stage of the disease who should not be in contact with their children.

This is a question which affects the poorer classes only, the richer classes and our visitors are little affected thereby, but just as the strength of a chain depends on the strength of its weakest link, so the health of a nation depends on the health of its poorest and weakest class.

(b) Institution (Hospital) Cases.

By the Local Government Board Order of 1911, cases of Phthisis occurring in patients in or attending for treatment Institutions partly or wholly supported by Voluntary Aid are now notified to the Medical Officer of Health, the home address of the patient being given on the notification. These notifications are transferred to the Medical Officer of Health of the District in which the patient resided.

Under this Order, 416 notifications were transferred to various parts of the country. 48 notifications were received from local Institutions concerning patients living in Bournemouth, and 11 notifications were transferred to Bournemouth from other areas.

The administrative measures taken in the case of the Poor Law patients were carried out also in the case of the "Hospital notified" patients.

(c) Public Health (Tuberculosis) Order, 1911.

This Order of the Local Government Board came into operation on January 1st, 1912, and required the (compulsory) notification of all cases of Pulmonary Tuberculosis ("Consumption of the Lungs") within 48 hours of its diagnosis by the Medical Attendant. The Medical Officer of Health receiving these notifications is required to treat them as private and confidential, and his register is open to the inspection only of three named persons.

The New
Notification
Order.

In view of what has been stated in the previous parts of this report it will be evident that this Order is of considerable importance to Bournemouth, although of less importance than it would have been in the early history of the health resort. It may be stated definitely that, although the administration of the Order will be as keen and prompt as that of other matters in relation to the satisfactory health standard of Bournemouth, no action will be taken which will prejudice the interests or inconvenience in any way the visitors who seek the beneficent effect of the climate of the town.

The Order requires the notification of all Phthisical patients. Not all such are infective, and the majority of the Phthisical patients who come into Bournemouth are non-infective, the disease being either quiescent or in the early non-infective stage. There are some cases which are advanced and infective; but these cases are not taken into the Hotels and Boarding Houses; and if they came into Bournemouth, their rooms were adequately disinfected to the satisfaction of the Medical Officer. So that as far as our visitors are concerned, the risk

of infection has already been controlled. With regard to the other cases which may be stated to be more or less infective, they will be visited and supervised, and as they include chiefly the poorer residents, the administration of the order as regards disinfection and Health Control will necessitate but an extension of the supervision which has been in existence during recent years.

SUPERVISION OF MIDWIVES.

One of the many interests of the Health Authority is the control and supervision of Midwives of the district. Among the poorer mothers, the Midwife frequently takes the place of the Medical Practitioner in attendance on child-birth, and whilst child-birth is usually a natural function, yet in many cases such knowledge and training are required in the proper treatment of abnormal conditions that a Midwife should know when skilled medical assistance is necessary. Moreover, even in giving assistance at a "normal" child-bearing, the elementary rules of hygiene must be observed, otherwise the help that the Midwife gives is fraught with danger to the health or even the life of the mother and the child. And thus the supervision of the Health Authority is concerned with two essentials: that the Midwife should observe rigidly the principles of hygiene, and that she should have adequate practical knowledge to enable her to send for skilled medical aid when it is needed.

At the beginning of every year, every Midwife who intends practising "on her own" is required to notify the fact to the Medical Officer of Health.

During 1911, 16 Midwives were on the local list for Bournemouth. Of these, 9 have been trained in

Midwifery at an institution and obtained their certificates from the Central Midwives Board thereby; and 7 were on the Midwives Role because they had been in practice before the Midwives Act came into force (1902).

During the year the Health Visitor paid 116 visits to these 16 Midwives inspecting their appliances and instruments, seeking information as to their observance of the rules of hygiene and inquiring into their general fitness for the responsible nature of their duties.

In some cases the Medical Officer considered it advisable to interview and instruct the registered Midwives as to their more careful observance of the laws of hygiene and the more intelligent control of child-labour. It is a regrettable fact that there are still Midwives on the Roll of the Central Midwives Board who do not realise fully the need and advantage of clean antiseptic and aseptic methods in their work. Of necessity, the Midwives Act of 1902 dealt leniently with the Midwives who were then (and had been for years) in practice, many of whom were quite unable to read a clinical thermometer, and some of whom were even unable to read; and so, although in 1912 there is a large proportion of trained and efficient Midwives, there are still many on the Roll who are unsatisfactory. The more efficient the Midwife the greater will be the chance of the life and the future health of the mother and the child, and so, although the 10 years since the passing of the Midwives Act, with its "extension of time" for registration until 1909, have been insufficient for the total abolition of the "old school" of Midwife and her relatively unclean methods, there is hope for the future.

In the future, there is abundant hope that the trained and efficient Midwife will not only take the

mother and child successfully over the great event of Birth, but will also by kindly advice and interest to the mother, aid in the reduction of the Infantile Mortality. Towards this end the increasing efficiency of the Midwife in future years will contribute; for the present, I would suggest to the Health Authority that a short series of lectures might be given to the Midwives in Elementary Hygiene and Maternity work and the upbringing of Infants; and a certificate of "efficiency" from the Health Authority be given to each Midwife who had attended the lectures and passed the test of examination after the lectures.

The control of registered Midwives, as stated, is carried out under the direction of the Medical Officer of Health, but there is a certain amount of "occasional and urgent help" at child-birth which is more difficult to control; the phrasing of the Midwives Act makes it difficult to supervise the assistance given at child-birth by persons unregistered and frequently irresponsible and ignorant of the most elementary rules of hygiene: on two occasions during the year your Committee, on the legal advice of the Town Clerk, have not taken action in respect of cases in which inefficient and untrained attendance was given at child-birth on the doubtful plea of "urgency."

TABLE OF MIDWIVES.

Midwives giving notice to practice	...	...	16
Visits of Inspection and Advice	...	...	116
Notification of Midwives concerning the sending for Medical help	...	...	23
Notification of Midwives re still births	...	...	9

WATER SUPPLY

A copy of the Analyst's report concerning the main water supply of Bournemouth is hereto appended. It will be seen that the water is remark-

ably pure and of a type which is free from pollution. Apart from the constant supervision of the Water Company, frequent samples are taken by the Corporation and submitted to competent and recognised analysts for report.

LISTER INSTITUTE OF PREVENTIVE MEDICINE.

REPORT ON BOURNEMOUTH MAIN WATER SUPPLY GENERAL CHARACTERISTICS.

The sample was clear and free from smell.

ANALYTICAL DATA.

Chemical	Parts per 100,000	Chemical	Parts per 100,000
Suspended Matter	...	Nitrogen as Nitrites	None
Dissolved Solids	25.9	Nitrogen as Nitrates	0.121
Chlorine	2.4	Oxygen absorbed from	
Alkalinity	15.1	Permanganate at 80° F:	
Permanent Hardness	5.5	(a) 15 minutes	...
Free and Saline Ammonia	0.002	(b) 4 hours	0.007
Albuminoid Ammonia	0.0055	Lead	None
Total Hardness 14=9.8 grains per gallon.			

BACTERIOLOGICAL.

The total number of Micro-organisms which grew at 37° c. was 9 per 1 c.c.

The number of Micro-organisms which grew at 20° c. was 11 per 1 c.c.

Bacillus Coli was not found even in 250 c.c. of the water.

The sample is very satisfactory both from a chemical and from a bacteriological point of view.

BACTERIOLOGICAL CONTROL OF MILK SUPPLY.

During 1911, 52 samples of milk coming into Bournemouth were taken by the Inspector and submitted to the Borough Bacteriologist for examination.

The examination was made concerning:

(1.) The possible evidences of Tuberculosis or other disease in the cows from which the milk was obtained.

No trace of the Tubercle Bacillus was discovered in any of the samples, nor was any evidence obtained of any serious disease in the cattle.

(2.) *Cleanliness.* Purity of the milk in the microscopic sense of the word indicates among other things that the milking of the cows was carried on in a clean manner. Although grosser impurities might be got rid of by straining the milk, the microscopic examination will still reveal uncleanliness in the process of milking.

In the case where a higher standard of cleanliness appeared to be desirable, the Medical Officer wrote to the dairyman or to the farm owner, calling his attention to the evidence of lack of cleanliness in the milking and the pamphlet of the Board of Agriculture concerning "Clean Milk" was enclosed. In such cases, repeat samples were taken, and it is gratifying to record that the warning resulted in a higher standard of cleanliness as evidenced in the examination of the second sample.

Whilst the administrative methods of a Health Authority towards ensuring a clean and disease free milk supply may result locally in a higher standard of purity, there is no doubt that a fuller control of cowsheds and farms is most desirable, more particularly with regard to the observance of the essential rules of cleanliness in the process of milking.

It appears to me, in view of the wide area to which a local milk supply may be delivered, that central control of inspection of milk and milking is

much to be desired. For the present, the system of local control will be continued, and every effort will be made to ensure a milk supply for Bournemouth of the highest standard of cleanliness and purity in the country.

ICE CREAMS.

During the summer season 12 samples of ice cream were taken in the district and submitted to analysis by the Borough Bacteriologist. The supervision of such a food commodity in which bacteriological growth is so rapid is not unimportant in the interests of the Public Health, and the samples were taken not only from the better class Restaurants but also from the stall vendors. The richer cream "ices" afford a more favourable field for the growth of the contamination than the less rich ices of the stall holders; any exposure of such ices to the dust of the atmosphere and its accompanying bacteria will result in the earlier contamination of ices if kept beyond 24 hours.

Some of the Restaurant keepers were not sufficiently careful concerning the covering up of all materials used in the manufacture of ices, and they were interviewed by the Medical Officer and advised as to the best method of avoiding dust-borne contamination. Two of the stall vendors of ices were in the habit of mixing one day's supply with the next day's make, and this was discovered by means of the bacteriological examination. The vendors were warned by the Medical Officer, with the result that adequate care was exercised and the making of the ices was carried out by more hygienic methods. In addition to the bacteriological examination of "Ices," which is an index as to their purity, efficient supervision of the premises

on which they are made is carried out by the Sanitary Inspectors. The close supervision of the makers of "Ice Cream" is one of the minor interests of the Bournemouth Health Authority, but it is an indication that there is a keen interest taken in the protection of the health of the residents and visitors.

SANITARY HOSPITAL.

The Municipal Fever Hospital serves a double purpose in the Health administration of the County Borough. It provides for patients suffering from certain Infectious Diseases the advantages of medical treatment and nursing care in a Hospital, and by making possible the prompt removal and isolation of the patient, it has a very definite utility in limiting the spread of infection.

In connection with this latter purpose, the co-ordination of all the Public Health administration with that of the School Medical Service has proved of great value. Reference has already been made to the information obtained by the ambulance nurse as to the school and class of the patient she removes to Hospital. The use of this information by the Medical Officer in supervising the school classes either personally or by the School Nurses results in the rapidity and promptness which alone can control the spread of infection.

During the year 1911, 177 patients were admitted into the Hospital, and of these 4 died.

The cases admitted included a large number of "observation" cases in which it was not possible for the Medical Attendant to state definitely that the patient was suffering from the Infectious Disease suspected. These cases were isolated for

varying periods in the "observation" blocks, and if the evidence against the suspected disease was conclusive, the patient was sent home.

Whilst medical science is continually becoming more accurate, it is still impossible to make a diagnosis in the very early stages of *some cases* of disease, and when there is a considerable doubt that a case may be infectious, it is most desirable that the case should be promptly isolated.

The use of the observation wards (two separate buildings, with two wards and a kitchen in each) is therefore a necessary part of the defence of the town against the spread of infection. The Hospital has been the subject of many reports by the Medical Officer of Health during the year, the matter of which it is unnecessary to re-write here, but reference may be made to the alterations and additions which are now being carried out. During the year one of the Isolation Blocks has been altered and renewed and made more suitable for the efficient treatment of the patients. There are in process of erection also a new ward block, extra accommodation for the Nurses, and a "discharging block." This latter will enable the patients to pass from one room into a bath-room, and after a disinfecting bath, thence into a non-infected room to dress in non-infected clothing before their final discharge from Hospital.

New
Buildings.

These buildings are in process of erection. Their completion and use during the year 1912 appears to be, at the present time, probable.

Diphtheria. The question of the *early use* of the modern methods mentioned in the treatment of Diphtheria is referred to elsewhere. In the clinical treatment of the disease at the Hospital, there is one fact which stands out clearly: whilst the mortality case rate of the disease has been very greatly reduced

by these methods the prompt treatment of each case results also in a total abolition of the mechanical obstruction to breathing; in none of the cases was it necessary to resort to the operation of Tracheotomy. No case of Diphtheria should die, and no patient should be permanently damaged by the disease *if* the case is treated at a sufficiently early stage. The prompt measures of the Health Authority have resulted in the diminution of the spread of the disease and in the saving of life, and the protection of health; but there are still some cases occurring among the children of the poor in which medical attention is not obtained early so that notification is delayed. In these cases, scientific treatment is applied in a later stage of the disease with the result that, although the patient may be saved in the initial stage of the disease, the later heart-failure which is a grave danger of the disease has still to be combated.

Clinical
Treatment.

Apart from the therapeutic measures which include the use of antitoxin, every Diphtheria patient is guarded against the onset of heart-failure by being in the recumbent position for $3\frac{1}{2}$ weeks; and in the treatment of the disease subcutaneous saline injections have proved of the utmost value. More recently they have been used also in the early stages with the object of eliminating the Diphtheria toxin from the system.

In most grave cases of Diphtheria it is found that the Klebs Loeffler bacillus is accompanied by forms of the Streptococcus, and in the preliminary treatment, the Polyvalent Streptococcus serum has been combined with the specific anti-toxin.

The value of these lines of treatment is evident, not only in the Hospital but also in the after history of the patient; the Medical Superintendent is also School Medical Inspector and examines his patients

in the schools a month or more after they have recovered from the disease, and there is no doubt that the object of all medical treatment should be, not only the saving of the child at the present, but the prevention of damage to the health of the child in the future.

It may be noted that, in referring to Diphtheria patients the word "child" is used; during the past few years diphtheria in the adult has been a comparatively rare condition in Bournemouth.

As a result of the Local Government Board Order of 1910, facilities are offered for the use of anti-toxin by Medical Practitioners in the early stage of the disease, both as a curative and as a prophylactic measure. Provision of Antitoxin.

Hitherto, the Medical Officer of Health, by his prompt telephonic communication with the Medical Practitioners has been enabled to control cases of the disease and also *contact* cases personally. It appears to me that this system is the most expedient one for the control of the disease; the administration of anti-toxin, to be the most effective means of checking the attacks of the disease should be almost entirely in the hands of the Medical Officer of Health. Its indiscriminate use is neither desirable nor expedient, and although it provides us with a means which if used early enough would abolish the mortality from Diphtheria, its application demands intimate knowledge of its possibilities.

In this respect it may be well to express clearly the policy of the Health Authority. We are provided with a means whereby we may, by *early* administration, prevent the fatal effects of a disease; but early administration of the remedy is not, in all cases, possible. The greater ideal is that of preventing the spread of the disease, and the

keen methods of supervision and bacteriological examination of all contact cases go far to the attaining of that ideal; so far, that in a rapidly growing community of 80,000 inhabitants the number of cases of Diphtheria is the lowest recorded for many years. Not only in the saving of child-life but in the protection of the health of the community this is a result which encourages us to continue in our present methods of preventive medicine.

Scarlet Fever. In the clinical treatment of this disease, there is evidence that the absolute freedom from death during the year was due largely to the use, in addition to the usual therapeutic measures, of two modern methods of treatment: saline infusions and polyvalent anti-streptococcus serum.

The present type of the disease is mild, but still the case-mortality in the country is about 3 per cent.; and with the aid of these therapeutic measures, your Medical Superintendent, during past years, has had a series of over 500 consecutive Scarlet Fever cases with no death. Not a few of these cases were virulent and serious, and although the evolution of the disease may seem to be towards non-virulence, its present usual mildness may only be a passing phase in the life history of its living germ.

“ RETURN ” CASES.

Throughout the country the problem of the “ return ” case of infection after the discharge of a patient from Hospital is receiving considerable attention.

The statistics for the Bournemouth Hospital are not available for past years, but they are now being noted and will serve a useful purpose in the future.

There was no return case of Diphtheria during the year: it is probable that this desirable result was due to the system of obtaining two and usually three consecutive negative throat swabs before the patient was declared free from infection and discharged from the Hospital.

In the case of Scarlet Fever, the problem of a fresh case of the disease in the home after the patients return from Hospital is a difficult one. Up to the present time a desquamation must have ceased before the patient is sent home; but this system is continued not for medical reasons but for expediency sake. The infection of the later stages of Scarlet Fever depends less on the desquamation than on the existence of discharge from mucous surfaces—nose or ear discharge, and considerable attention has been given therefore to these conditions. The supervision of the Health Authority does not end on the discharge from Hospital of the patient; cases are supervised later by the Medical Officer of Health, particularly before their return to school in two (or many more) weeks after their discharge from the Hospital. The percentage of return cases will in future be calculated, meanwhile there is no doubt that the use of the “discharging” block in process of erection will contribute to the diminution of the number of cases which may occur.

In relation to the question of “Return” cases, I would express the opinion that many instances of infection classified under this heading are due, not to “return” infection but to primary infection. The causative germ of the disease may remain in a “normal” throat for long periods of time, and the “text book” incubation period of Scarlet Fever cannot be taken as a standard; the germ may remain inert in the healthy mucous membrane of a mouth and throat, but will become effective in

causing the disease when the "resistance" of that mucous membrane is lowered as by an ordinary sore throat or even by the extraction of a tooth, markedly so by an operation for Enlarged Tonsils and Adenoids. The experience gained in School Medical Inspection is valuable to the Health Authority in many ways; in no way is it more valuable than in the co-relation of facts concerning, not only the actual cases of Infectious Disease, but also concerning the many school and home contacts of each case. And it appears to be probable that many problems of the Health Authority such as "Return" cases will be solved by the work of School Medical Inspection.

During the year 177 patients were admitted into the Hospital, a number which is the lowest recorded for nine years. The nature of the cases, and the fact that there was a small amount of double-infection of patients in the town made the administration of the Hospital a matter requiring constant attention. And the fact that during a long period of the year the largest ward block was in the hands of the builders for alterations which appeared to require slow progress for their proper completion was tolerable only in view of the low rate of notifiable diseases incidence during the year.

Of the 177 cases admitted during the year, 4 died. Of these, 3 died of Diphtheria, and one of Tuberculous Meningitis. The latter case was admitted as an observation case.

During the year, there was no death in the Hospital from Typhoid Fever or Scarlet Fever.

I wish to record my appreciation of the work of the Matron and the Nursing Staff. This remarkably low death rate in the Sanitary Hospital was due very largely to the keen and kindly manner in which the nursing of the patients was carried out and the medical instructions observed.

Bournemouth Sanitary Hospital Table A.

Year.	No. of Patients Admitted.	No. of Deaths.	Case Mortality Rate.	Average cost per person per day of provisions and stimulants.
1906	237	10	4.1 per cent.	10½d.
1907	206	7	3.3 „	11d.
1908	229	15	6.5 „	10½d.
1909	333	11	3.3 „	8½d.
1910	322	12	3.7 „	10d.
1911	177	4	2.2 „	10¼d.

HOSPITAL TABLE B (1).
Sanitary Hospital Expenditure, &c., for the years 1906, 1907, 1908, 1909, 1910, 1911.

Month	Total Expenditure, including Repairs, Wages, &c.												Expenditure on Provisions only.						Daily Average Number of Persons inclusive of staff.				Average Cost per head per Day.													
	1906.			1907.			1908.			1909.			1910.			1911.			1906.			1907.			1908.			1909.			1910.			1911.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.			
JAN. ...	220	10	6	284	11	5	211	3	9	311	6	0	329	4	0	334	9	8	47	3	5	65	5	1	54	10	6	63	18	6	96	12	1	78	7	8
FEB. ...	192	15	11	206	11	4	207	10	6	209	1	5	261	15	11	296	16	2	45	14	10	54	16	6	51	3	2	64	8	9	58	12	1	71	19	11
MARCH	356	19	0	337	4	5	287	14	8	450	12	5	400	2	0	369	1	4	55	5	2	76	16	8	50	7	8	65	8	0	73	1	9	76	9	5
APRIL	171	17	3	186	8	5	145	1	5	200	17	3	171	5	6	252	18	7	50	18	3	58	11	4	47	1	11	67	8	2	61	7	6	51	17	3
MAY ..	191	5	3	272	0	10	229	5	10	215	12	11	276	15	7	199	3	7	52	3	3	49	1	1	47	12	10	54	7	11	67	1	5	56	2	5
JUNE..	193	3	9	248	16	4	235	17	5	173	13	9	271	8	6	168	5	1	43	15	5	50	11	2	56	18	2	43	18	8	69	19	5	44	17	0
JULY	295	7	1	201	6	6	212	5	10	235	2	6	189	15	6	200	9	0	47	9	1	48	14	0	52	9	1	52	9	1	65	16	6	46	16	11
AUG...	213	10	3	160	12	4	162	5	11	192	2	6	230	4	11				55	4	5	26	0	3	52	3	9	50	3	6	54	11	11			
SEPT..	238	3	7	215	1	5	229	14	7	291	11	0	392	1	11	303	15	6	46	14	4	57	18	1	57	3	8	48	11	0	61	10	0	51	11	4
OCT. ...	151	8	8	233	17	3	161	8	5	244	12	9	191	12	2	251	18	8	55	3	0	53	19	4	53	16	3	56	7	7	66	15	5	59	10	3
Nov...	241	13	11	196	11	5	227	2	9	195	2	3	239	0	8	192	9	9	69	4	9	60	5	11	72	2	5	72	7	1	77	11	3	58	12	5
Dec...	231	3	10	201	15	8	228	18	6	258	18	1	309	11	2	376	18	10	81	6	0	49	16	2	68	15	7	76	3	3	111	11	5	84	4	5
Totals	2484	8	9	2797	15	3	2539	16	0	2948	16	3	3224	15	5	3176	11	1	1634	14	1	679	14	10	634	6	5	717	6	9	860	2	4	735	0	11

HOSPITAL TABLE B (2).
Comparative Statement for 5 Years.

YEAR.	Average number of persons, inclusive of Staff in Hospital per day.	Total Average cost per person per day, which includes all administrative expenses.		Average cost per person per day for provisions alone, inuding stimulants.		Maintenance charges, Income for the year.		Total Expenditure for the year, after deducting receipts from patients.		Total of all cases received into Hospital.	
		£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
1906	39.57	0	3 5½	0	0 10½	259	12 11	2224	15 10	237	
1907	40.34	0	3 9,	0	0 11	447	2 2	2350	3 1	206	
1908	39.87	0	3 5½	0	0 10½	369	0 1	2170	14 6	229	
1909	55.97	0	2 10½	0	0 8½	578	19 7	2369	16 8	333	
1910	55.84	0	3 0½	0	0 10	504	18 10	2719	16 7	322	
1911	42.66	0	4 1½	0	0 10½	219	0 8	2957	10 5	177	

HOSPITAL TABLE D.

Disease	At all Ages.	Removed to Sanitary Hospital.	Nursed at Home.	Total Deaths.	Died in Sanitary Hospital.	Died at Home or Elsewhere.
Small-pox	—	—	—	—	—	—
Cholera	—	—	—	—	—	—
Diphtheria, including Membranous Croup	39	32	7	5	3	2
Erysipelas	34	—	34	1	—	1
Scarlet Fever	101	94	7	—	—	—
Enteric Fever	9	5	4	1	—	1
Relapsing Fever	—	—	—	—	—	—
Continued Fever	—	—	—	—	—	—
Puerperal Fever	6	—	6	1	—	1
Totals	189	131	58	8	3	5

In addition to the above, 37 patients were admitted to the Sanitary Hospital suffering from diseases other than those scheduled in the above table; also 7 cases of Scarlet Fever and 2 cases of Diphtheria were admitted to the Hospital from districts outside the Borough boundary.

The following tables give further information concerning the Health of Bournemouth during 1911 :—

TABLE III. (L.G.B.)

Causes of, and Age at Death during the year 1911.

Causes of Death.			Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.								Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District.	
			All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.		65 and upwards.
All Causes	Certified (c)	...	1016	...	...	...	...	...	...	...	179	
	Uncertified	...	4	...	...	...	...	...	3	1	...	
Enteric Fever	...	...	1	...	...	...	...	...	1	...	...
Small Pox	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	16	2	8	5	1	...	...	...	2	
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	3	2	1	...	...	...	...	...	...
Diphtheria and Croup	...	...	5	...	...	2	3	...	...	...	3	
Influenza...	...	...	15	...	...	...	...	6	3	6	...	
Erysipelas	...	...	1	...	...	...	...	...	...	1	...	
Cerebro-Spinal Fever	...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	...	...	115	1	...	...	4	17	57	30	6	30
Tuberculous Meningitis	...	...	4	1	...	2	1	...	...	...	...	1
Other Tuberculous Diseases	...	...	24	4	2	4	1	3	5	3	2	7
Rheumatic Fever	...	...	1	...	...	...	...	...	1	...	...	...
Cancer, malignant disease	...	...	96	...	...	1	1	...	6	36	52	21
Bronchitis	...	...	36	1	1	...	2	2	1	3	26	3
Broncho-Pneumonia	...	...	21	6	3	3	...	...	...	3	6	4
Pneumonia (all other forms)	...	...	18	...	1	...	...	...	5	6	6	5
Other diseases of Respiratory Organs...	...	...	18	...	...	2	...	...	2	7	7	5
Diarrhœa and Enteritis	...	...	60	45	7	1	...	...	1	1	5	8
Appendicitis and Typhlitis	...	...	5	1	...	1	1	1	...	...	1	5
Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	...	...	12	...	...	...	...	...	...	7	5	...
Nephritis and Bright's Disease	...	...	34	...	...	...	...	1	7	14	12	5
Puerperal Fever	...	...	1	...	...	...	...	...	1	...	...	...
Other accidents and diseases of Pregnancy and Parturition	...	...	9	2	...	...	...	...	5	1	1	4
Congenital Debility and Malformation, including Premature Birth	...	...	38	37	1	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide	...	...	9	...	...	1	2	1	1	3	1	5
Suicides	...	...	1	...	...	...	...	...	1	...	...	...
Other Defined Diseases	...	...	464	18	2	3	13	15	43	118	252	71
Diseases ill-defined or unknown	...	...	13	1	...	1	...	...	1	...	10	...
			1020	121	26	26	29	40	141	238	399	179

Deaths in Bournemouth Institutions: 6 years.

Name of Institution.	Persons belonging to the District.						Persons not belonging to the District.						Totals for year.					
	1906	1907	1908	1909	1910	1911	1906	1907	1908	1909	1910	1911	1906	1907	1908	1909	1910	1911
Sanitary Hospital ..	9	5	14	10	11	4	1	2	1	1	1	0	10	7	15	11	12	4
Royal National Sanatorium	1	0	0	0	0	0	4	2	2	5	4	6	5	2	2	5	4	6
Firs Home	2	3	2	1	1	2	15	13	13	15	7	9	17	16	15	16	8	11
Royal Victoria and West Hants Hos- pital	50	43	45	45	67	71	29	32	36	34	30	45	79	75	81	75	97	116
S. Joseph's Home ..	0	0	0	1	0	1	0	4	1	2	1	1	0	4	1	3	1	2
Herbert Home ..	0	0	0	0	0	0	3	0	1	2	0	0	3	0	1	2	0	0
Hahnemann Home ..	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Springbourne Orphanage ..	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Home of Good Hope	11	3	3	1	2	2	7	6	5	1	3	3	18	9	8	2	5	5
House Beautiful Con- valescent Home ..	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1
Victoria Home for Nurses	3	0	3	0	1	2	2	3	2	2	3	1	5	3	5	2	4	3
Cripples' Home ..	0	0	0	1	0	0	2	0	0	1	1	0	2	0	0	2	1	0
Sanatorium, P'kesd'n	3	0	1	0	0	6	0	3	9	7	4	0	3	3	10	7	4	6
Convent of the Cross, Pokesdown ..	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
S. Luke's Home, Pokesdown ..	9	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0
Cottage Home, Cot- lands Road ..	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
Stagsden N'sing H'fne	No Record				2	3	No Record				9	4	No Record				11	7
Montserrat .. ..	..	..	..	..	5	1	..	..	..	..	5	5	..	..	..	..	10	6
White Lodge .. ..	..	..	..	..	1	1	..	..	..	..	1	0	..	..	..	..	2	1
Hartington .. ..	..	..	..	..	1	2	..	..	..	..	4	6	..	..	..	..	5	8
Aston Grays .. ..	..	..	..	..	3	3	..	..	..	..	2	0	..	..	..	..	5	3
Totals	80	55	69	59	95	98	63	66	70	72	75	81	143	121	139	130	170	179

Comparative Table of Zymotic Death Rates, Etc.

Columns.	Annual Rate per 1,000 Living. Death Rate.										
	Birth Rate.	Crude.	Corrected.	Enteric.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Diarrhoea and Enteritis.	Deaths under 1 year per 1,000 Births.
England & Wales ..	24.4	14.6	14.6	0.07	0.00	0.36	0.05	0.13	0.21	1.06	130
77 Great Towns ...	25.6	15.5	16.4	0.06	0.00	0.47	0.06	0.15	0.24	1.31	140
136 Smaller Towns ..	23.4	13.8	14.4	0.07	0.00	0.41	0.06	0.12	0.18	1.14	133
England & Wales (less the 213 Towns) ..	23.4	13.9	13.1	0.07	0.00	0.22	0.04	0.11	0.19	0.77	118
Bournemouth ..	15.51	12.88	11.81	0.01	0.00	0.20	0.00	0.06	0.03	0.75	98.5

FACTORIES AND WORKSHOPS ACTS, 1901.

The following is a report on the working of the above Act. For further details see the Sanitary Inspector's Report which is herewith appended.

Factories, Workshops, Workplaces, Laundries and Homework.

1—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecu- tions.
1	2	3	4
Factories (including Factory Laundries)	32	2	—
Workshops (including Workshop Laundries)	570	18	—
Workplaces (other than Outworkers' premises included in Part 3 of this report) ...	84	1	—
Total ...	686	21	—

2—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

No. of Defects.

Particulars.	Found.	Remedied.	Referred to H.M. Inspector.	No. of Prosecu- tions.
1	2	3	4	5
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness ...	5	5	—	—
Want of ventilation ...	2	2	—	—
Overcrowding ...	1	1	—	—
Want of drainage of floors ...	—	—	—	—
Other nuisances ...	3	3	—	—
Sanitary accommodation :				
Insufficient ...	—	—	—	—
Unsuitable or defective ...	9	9	—	—
Not separate for sexes ...	2	2	—	—
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of under- ground bakehouse (s. 101)	—	—	—	—
Breach of special sanitary re- quirements for bakehouses (ss. 97 to 100) ...	38	38*	(Cleansing and Limewashing)	—
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report) ...	—	—	—	—
Total	60	60	—	—

* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

3.—HOMEWORK.

OUTWORKERS' LISTS, SECTION 07.															
NATURE OF WORK	LISTS RECEIVED FROM EMPLOYERS						PROSECUTIONS.		OUTWORK IN UNWHOLE SOME PREMISES. SECTION 108.				OUTWORK IN INFECTED PREMISES. SECTIONS 109, 110.		
	Sending Twice in Year			Sending Once in Year			Notices served on Occupiers as to keeping or sending lists. (8)	Failing to keep or permit in-pection of lists. (9)	Failing to send lists. (10)	In-stances served. (11)	Notices served. (12)	Pro-ecutions. (13)	In-stances. (14)	Orders made (S. 110), (15)	Prose- cutions (Sects 109,110) (16)
	Lists (2)	Outworkers		Lists (5)	Outworkers										
		C n- tract'rs (3)	Work- men. (4)		Con- tract'rs (6)	Work- men (7)									
(1)	64	—	232	6	—	19	—	—	—	4	4	—	—	—	—
Wearing Apparel—*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(1) making, &c. ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(2) cleaning and washing ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Household linen ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lace, lace curtains and nets...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Curtains & furniture bangings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Furniture and Upholstery ...	2	—	6	—	—	—	—	—	—	—	—	—	—	—	—
Electro-plate ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
File making ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Brass and brass articles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fur pulling ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cables and chains ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Anchors and grapnels	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cart gear...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Locks, latches and keys	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Umbrellas, &c. ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Artificial flowers ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nets, other than wire nets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tents ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sacks ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Racquet and tennis balls	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paper bags and boxes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Brush making ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pea picking ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Feather sorting ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carding, &c., of buttons, &c.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stuffed toys	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Basket making ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	66	—	238	6	—	19	—	—	—	4	4	—	—	—	—

* Two lists sub-divided.

4—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.
1	2
Bakehouses	73
Dressmakers and Milliners	161
Tailors	94
Bootmakers and Saddlers	61
Launderers	87
Carpenters and Builders	58
Cabinet Makers and Upholsterers	29
Coachbuilders	16
Watchmakers, &c.	11
Metal Workers, Smiths, &c.	39
Cycle and Motor Works	29
Kitchens of Restaurants, &c.	33
Miscellaneous	46
	<hr/>
	737

5—OTHER MATTERS.

Class.	Number
1	2
<i>Matters Notified to H.M. Inspector of Factories :—</i>	
Failure to affix Abstract of the Factory and Workshops Act (s. 133)	11
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)—	
Notified by H.M. Inspector	6
Reports (of action taken) sent to H.M. Inspector...	6
Other	0
<i>Underground Bakehouses (s. 101) :—</i>	
Certificates granted during the year	0
In use at the end of the year	5

HOUSING.

(Article XIX. (14k.))

The increasing requirement of house accommodation for artisans and labourers has been adequately met by the supply, and coincident with the erection of large houses there has been a steady supply of new houses of smaller size, especially in the outlying portions of the district.

The tenants of these smaller houses are engaged principally in the building trade, laundry work and gardening.

There is a satisfactory freedom from overcrowding; and there is sufficiency of open space about these smaller houses, which thus reproduce in a lesser degree one of the main features of the buildings in Bournemouth.

Strict supervision is kept up by the Sanitary Inspectors concerning the cleanliness of the houses and their surroundings. It is interesting to record that in cases where persistent lack of cleanliness in a school child has been reported to the Medical Officer by the School Nurse, the house has been visited by the Sanitary Inspectors.

The erection of all new houses is supervised by the Borough Surveyor's Department, the adequacy of the drainage and sanitary fittings being certified by the Chief Sanitary Inspector.

HOUSING AND TOWN PLANNING ACT.

In connection with Section 14 of the Act, the implication of two conditions has excluded all the houses inspected; for either the house requiring attention had a rental exceeding £26 per annum, or the condition had to be implied that the house was at the commencement of the holding reasonably fit for habitation, etc.

In process of time this latter condition will automatically cease to exist; but during the year 1911, no action was deemed necessary under Sections 14 and 15.

Section 17 has been of use in cases such as could be stated definitely to be not reasonably fit

for human habitation; but as far as my present knowledge of the district guides me, I am of opinion that such cases are comparatively rare in the district.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

The following tables give the information required by Article V. of the General Order:—

Table A.

Number of Dwelling Houses inspected ...	360
*Number considered to be dangerous or injurious to health	6
Representations made to the Local Authority <i>re</i> closing orders	3
Number of closing orders made	3
Dwelling Houses, defects remedied (see next table).	
Dwelling Houses, rendered habitable after closing orders	Nil.

**In all 6 cases, the houses are to be demolished, 3 after representations to the Local Authority.*

The following table includes the minor defects in the dwelling houses (360) inspected under these Regulations by the Sanitary Inspectors during the year:—

Table B.

Number of houses concerning which notices of defects were served ...	298
Number of notices complied with ...	176
Number of notices outstanding or being complied with	55

Apart from the utility which the Housing and Town Planning, &c., Act may have in the wider field of its application it appears to me that in Bournemouth its more immediate additional benefit to the sanitary condition of the district is somewhat limited.

For some time past there has been efficient supervision of the district in this respect, and it has been unnecessary to resort to any of the powers granted to the Local Authority under Section 15 of the Act; in all cases where defects were found, the preliminary notice to the agent or owner of a defect remediable under the Public Health Acts resulted in the remedying of the defect. As long as such a result is obtainable locally by this method, the method may be regarded as efficient; and it appears to me that the method is the most expedient and the most suitable in view of the nature and the circumstances of the district controlled by the Health Authority at the present time. The success of this method has also obviated the necessity of repairs being undertaken by the Local Authority in default of the landlord, and has, moreover, avoided the difficulty of recovering the expenses from the landlord under the Summary Jurisdiction Acts.

I am, Gentlemen,

Your obedient servant,

A. D. EDWARDS,

Medical Officer of Health.

COUNTY BOROUGH OF BOURNEMOUTH.

ANNUAL REPORT

OF THE

BOROUGH BACTERIOLOGIST

For the Year ending 31st December, 1911.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

Gentlemen—

I herewith beg to submit to you my Annual Report concerning the duties entrusted to me as Bacteriologist for the County Borough of Bournemouth.

During the past twelve months I have made 649 bacteriological and other investigations.

The examinations in question consisted of:—

Sanitary Hospital Swabs ...	...	...	230
Borough "Free" Swabs ...	...	...	72
Education Department. School Swabs	...	...	191
Samples of Milk re Tuberculosis	...	...	52
Ditto	General Examination	...	52
Specimens of Blood re Typhoid Fever, etc.	...	...	10
Cultures and Vaccines	...	...	14
Samples of Ice-cream	...	...	12
Sundry Pathological Examinations	...	...	16

The distribution of these investigations throughout the various months of the year shows marked fluctuations. The greatest demands were in the first three and last three months of the year. The highest record was 157 examinations for December; the lowest, 5 for August. The following is a complete monthly list:—

In January	47	examinations	were	made
February	53	„	„	
March	41	„	„	
April	32	„	„	
May	37	„	„	
June	27	„	„	
July	28	„	„	
August	5	„	„	
September	9	„	„	
October	93	„	„	
November	120	„	„	
December	157	„	„	

Of the 230 Swabs examined for the Sanitary Hospital 52 gave positive results as regards the presence of diphtheria germs and 178 swabs gave negative results.

Of the 72 Borough (“Free”) Swabs, 19 gave positive, and 53 negative results.

Of the 191 Swabs for the Education Department, 21 gave positive, and 170 negative results.

The last two statements, dealing with “Free Swabs” and “School” bacteriology, are exceedingly interesting from a Public Health point of view, as they admirably illustrate the value of preventive medicine. As a result of the swab system adopted by the Medical Officer of Health, 40 persons (mainly children) in various parts of this Borough, were at the earliest possible period, found to be presumably infectious, and were promptly dealt with. Of course it is impossible to state what

would have happened if these preventive measures had not been in force; but it is practically certain that the Borough would have had to bear a considerable increase of Hospital expenditure for the maintenance of a greater number of Diphtheria patients.

MILK.

During the past twelve months, 52 samples of milk have been examined for Tuberculosis, and a similar number of samples with special reference to other products of disease, cleanliness, etc.

No Tubercle bacilli were found in any of the samples of Milk supplied to Bournemouth.

As regards the general condition of the Milk, especially in the direction of cleanliness, there is room for considerable improvement.

Of the 52 samples subjected to general examination 30 were good: the remainder called for unfavourable comment in some way or other, some being only slightly tainted, others markedly polluted.

The prevalence of unclean milk is universal throughout the country, and any permanent improvement seems hopeless, without the assistance of legislative measures.

From a bacteriological point of view, one of the most baneful factors is the presence of cow manure in practically every milk. The amount may be large or small (frequently it is large) but it is there, and anything more undesirable in milk would be hard to find. Of course, the Dairy Farmers are responsible for this particular kind of milk contamination, and as a rule they and their dairy farms are outside the jurisdiction of the Towns to which they send their milk.

There is no reason why milk should be polluted with cow manure: a few simple precautions would render it impossible. But until indifference and gross carelessness are punishable offences, clean milk will continue to be the exception rather than the rule.

ICE CREAMS.

The improvement in the hygienic condition of Ice Creams, referred to in my 1910 Report, has not been maintained.

This year the samples received proved to be of a very unsatisfactory character.

Twelve samples were examined. Of these three were good, two fairly good, four bad, and three very bad.

Making the most liberal allowances for the perishable nature of these ices, the unfavourable conditions of a hot summer, and all other factors tending to promote putréfaction, I consider this bad record for unwholesome ices quite unjustifiable.

No legitimate excuse can be offered for such gross bacterial impurity as was the case in seven of the above samples.

We know from actual experiments in Bournemouth that the microbic pollution of ice creams can be reduced to a minimum by simple measures: but great difficulty is experienced in getting those simple measures methodically carried out.

As regards the 30 items tabulated as Cultures, Vaccines, and pathological sundries—these represent various investigations and preparations outside ordinary routine work. They were mainly

associated with obscure cases or complications, where the Medical Officer of Health considered that practical bacteriology was likely to prove serviceable. In such instances I shall always be not only willing but anxious to give any assistance in my power.

In giving this brief summary of the bacteriological work for the year 1911, I wish to acknowledge my indebtedness to the Medical Officer of Health for his co-operation and kind advice on many occasions.

I remain, Gentlemen,

Your obedient servant,

F. J. TANNER,

Borough Bacteriologist.

COUNTY BOROUGH OF BOURNEMOUTH.

Sanitary Inspectors' Department,

March, 1912.

TO THE MAYOR AND TOWN COUNCIL,
COUNTY BOROUGH OF BOURNEMOUTH.

Mr. Mayor and Gentlemen—

I have the honour to submit for your consideration the Annual Report of work carried out by this Department for the year ending December 31st, 1911.

The administrative work of the Department was re-organised at the commencement of the year. The Borough has been divided into five Districts with an Inspector, each of whom is responsible for all the duties usually carried out by an Inspector of Nuisances excepting those relating to Inspection of Food Supplies and the duties under the Food and Drugs Acts, these latter duties devolving upon two Special Inspectors.

These two special Inspectors are also responsible for the duties under the Factory and Workshop Act.

From an administrative point of view as well as that of efficiency in supervision the result has been most satisfactory.

There is no overlapping of duties, and the same standard of work has been secured throughout as regards the general routine work of the Department.

The adoption of a general standard of work to be enforced under your Authority in making the house-to-house inspection has been a great advantage to the owners of property as well as a guide to your Inspectors, and has secured the result of there being no misunderstanding or friction.

The owners of property have loyally assisted your Authority in improving the dwelling houses of the working and poorer classes, although, in some cases the expense incurred was a serious one, and in only one instance was it found necessary to apply for magisterial aid in dealing with a Terrace of six houses.

The time of the two Food Inspectors has been almost entirely taken up with the duties relating to the Inspection of Food Supplies, Shops, Slaughterhouses and Meat Inspection, with the result that it has not been possible to give the attention to the duties under the Factory and Workshop Act as in previous years.

The Inspection of Domestic Registries, Shops Hours Act, Seats for Shop Assistants Act, and Employment of Children Act, by Mr. Smith, has also not been so regular or systematic as in previous years, the Inspector having to carry out duties as a District Sanitary Inspector as well.

Arrangements will require to be made to remedy this during 1912, particularly as the new Bye-laws relating to the last-mentioned Act are now in force.

The following special subjects have been dealt with during the year by your Authority:—

The Ambulance service and equipment for street accidents has been considered and re-organised.

There are now 7 special huts fitted with the necessary equipment placed in convenient positions of the Borough, each of which is attended to regularly as required.

It has been decided to sewer the old portion of Moordown and a house-to-house inspection of this District will be proceeded with during the ensuing year.

Three Special Reports have been made as to Meat Inspection of the Borough, and your Committee have carefully considered the questions raised and the general supervision of the Meat Supplies has been improved.

Your Authority have also spent much time and attention to the question of the improvement of the Public Lavatory Accommodation of the Borough and have decided to provide free Urinette accommodation for Ladies at the principal Lavatories.

The disposal of House Refuse has been an anxious question for your Committee, but owing to the care and attention given to the several tips, only one series of complaints has been received on two successive days during the year.

With the increased accommodation at the Lansdowne Park Destructor and the new Destructor in hand at Southbourne, more efficient disposal will now be possible.

Special Reports have also been considered as to Brick Fields King's Park, Alton Terrace, Fox Cottages, Bourne Stream, Right-of-Ways and Passages, Regulations for Inspection of Districts, Smoke Nuisances and Employment of Children.

FACTORY AND WORKSHOP ACTS, 1901-1907.

The total number of workshops and work-places now registered in the Borough is 737, a decrease of 12 on last year.

During the year 47 new workshops have been registered, 69 work rooms have been measured, and cards, *re* cubic space, etc., have been supplied to the occupiers.

In all cases where nuisances have been found to exist, notice has been given to the owner or occupier of the premises to remedy the defects, and it is very satisfactory to be able to report that in every case the nuisance has been abated without legal action.

It has not been possible to devote so much attention this year to the Workshops partly owing to the increased inspection of the Meat and Food Supplies, and the re-organisation of duties of the Food Inspectors, also to the absence of Mr. Pearce from duty owing to sickness. Your Authority appointed a Temporary Inspector in December to make up back work and revise Registers, etc.

During the year 686 inspections have been made, and 21 notices have been served.

The question of framing Bye-laws for the more efficient provision of Fire Escape in case of workshop and workplaces situate on and above the first storey of premises is still receiving the attention of your Sanitary Committee.

The following is the list of workshops on the register at the end of the year, classified according to trade, and showing the number of rooms occupied:—

Trade.	Premises Registered.	Rooms Occupied.
Bakehouses	73	75
Dressmakers and Milliners ...	161	245
Tailors	94	133
Bootmakers and Saddlers ...	61	64
Laundries	87	199
Carpenters and Builders ...	58	83
Cabinet-makers and Upholsterers	29	46
Coachbuilders	16	39
Watchmakers, etc.	11	17
Kitchens of Restaurants, etc.	33	33
Metal Workers, etc.	39	46
Cycle-builders and Motor Works	29	35
Miscellaneous	46	61
Total	737	1,076

BAKEHOUSES.

Of the 77 bakehouses occupied in the Borough five are occupied as underground bakehouses and the remainder are on, or above, the ground level.

All the underground bakehouses are certified by your Authority to be suitable as regards light, ventilation, construction, etc., to be used as bakehouses.

In one bakehouse structural alterations have been carried out, and the work supervised by this Department.

The whole of the bakehouses in the Borough have been cleansed or limewashed twice during the year, in accordance with the requirements of the Act.

KITCHENS OF RESTAURANTS, Etc.

These premises have been inspected during the year, and in no instance was it found necessary to serve notice requiring the abatement of nuisance.

In making these inspections special attention has been given to the cleanliness of the larders, tables, and cooking utensils, and these have been found to be satisfactory.

HOMEWORK.

During the year 70 lists containing the addresses of 251 "Outworkers" have been received.

Thirty-two of these addresses were outside of the Borough, and the usual particulars were sent to the Authorities of the district in which the work was done.

Two addresses were received from outside Authorities.

One hundred and fifty-seven visits were made to out-workers' premises, and in only four instances was it found necessary to serve notices for the cleansing of the premises.

Thirty employers of outworkers failed to send in their List of Outworkers at the specified time.

In each case a verbal warning was given, under your Authority, and the requirements were subsequently complied with.

SHOP HOURS ACT, 1892-1895.

The object of this Act is to prevent the employment of "young persons" (under the age of 18 years) for more than 74 hours, including meal hours, in one week.

During the year 58 visits have been made to shops in the Borough under this Act, and it is satisfactory to note that in no case has a "young person" been found to be employed more than the specified number of hours. One complaint only has been received.

In 11 instances young persons were found to be employed in shops in which the notice, as required by Section 4 of the Act, was not exhibited.

The usual Notices were delivered at each of these premises.

SEATS FOR SHOPS ASSISTANTS ACT.

When making inspections under the Shop Hours Act inquiries were also made as to the provision of seats for the female assistants.

Four general inspections were made of shops in which female assistants were employed, and only one shop was found without a sufficient number of seats.

No complaints have been received this year as to any contravention of this Act.

EMPLOYMENT OF CHILDREN ACT, 1903.

On 49 occasions inspections have been made of the Borough after 9 p.m. for the purpose of detecting any offence against the provisions of this Act.

Twelve children were found employed after the legal time.

In eleven instances letters of warning were sent to the parent or employer, in some cases to both.

In the case of one child, the parents of whom had been previously warned, legal proceedings were taken and the father was fined 10s. including costs.

Bye-laws for regulating the Employment of Children generally have been framed by your Authority and approved of by the Secretary of State, Home Office, Whitehall, and arrangements are now being made for the enforcement of same.

During the year six copies of licenses granted under the Prevention of Cruelty to Children Act, 1904, for children to take part in public entertainments, have been received, and on each occasion the place of entertainment was visited and the conditions of the license enforced.

REGISTRIES FOR FEMALE DOMESTIC SERVANTS.

The number of these premises on the Register at the end of the year was 25, a decrease of two on last year.

During the year business has been discontinued on four premises, and two new offices have been registered.

Periodical visits have been made to the premises for the purpose of ascertaining whether the provisions of the Bye-laws relating to these premises were complied with.

On three occasions contraventions were ascertained; in each case the attention of the Registry Office keeper was called to the infringement of the Bye-laws.

SMOKE NUISANCES.

During the year general inspections of the Borough have been made of special premises, such as bakehouses, laundries, factories, etc., for the detection of nuisances arising from black smoke, and where found necessary, observation of 60 minutes' duration were made.

In no case has it been found necessary to take formal action; in two instances, however, letters of warning were sent which had the desired effect.

In our Borough the chief offender against a clear sky and pure air is without doubt the domestic fire, but since the introduction and adoption of the gas cooker and stoves in Hotels, Boarding Establishments, etc., the amount of atmospheric pollution from domestic coal fires has considerably diminished.

In fact, after careful observation, I am of opinion the amount of smoke pollution is now much less at the present time than it was ten years ago, notwithstanding the great development and building extension of the Borough which have taken place during the last decade.

The smoke diminution is, of course, an important factor, not only in relation to the prevalence of fogs induced by the heavier hydro carbons, but also in relation to the tainting of the air by the escape of monoxide, ammonia, and other various unburnt hydrocarbons, caused by a large number of coal fires.

DAIRIES, COWSHEDS, AND MILK SHOPS ORDERS.

Four hundred and thirty-one inspections have been made of cowsheds, dairies, and milk purveyors in the Borough, and the regulations relating to cleanliness, limewashing, and general sanitation have been enforced.

Improvements have been carried out in two dairies, and one new premises have been erected; also seven registrations have been made during the year for the sale of milk from milk shops.

The half-yearly limewashing of premises has in every instance been carried out after notice given by your Inspector.

There are only five cowsheds in the Borough.

So far as these Orders refer to this Borough every precaution is taken to safeguard the milk supplies, but unfortunately your Authority cannot control the source of the milk supplies outside the Borough boundaries.

I am bound to admit, however, that the dairy-men in the Borough have realised the importance of the public demand to supply a clean and pure milk and some of the larger firms have recently put down special plant for straining and cooling the supplies previous to delivery.

The importance of a pure and clean milk supply is becoming to be recognized by the general public, and when one considers the numerous liabilities of milk becoming contaminated at the (1) farm, (2) in transit, (3) in the shop, (4) during delivery, and lastly in the house of the consumer, it is no wonder that this principal diet of young children becomes a source of sickness in so many cases.

The only really reliable preventive measures against contamination would appear to be what is known as the American system hereafter mentioned.

In the absence of the demand for greater cleanliness of the milk supplies and the lack of encouragement that a farmer receives it is perhaps unreasonable to expect the ordinary dairy farmer to take all the particular precautions necessary to obtain an absolutely clean and pure milk supply.

If the general public were to see the illustrations representing the actual condition under which the milk trade is carried on from the farmer to the consumer, and the nature of the dirt with the attendant dangers in the feeding of their delicate children and for the nourishing of sick and convalescent there would be a greater demand both by rich and poor to remedy what in many parts of the rural districts is a grave scandal.

It is demand that creates supply, and it is only by educating the consumer and requesting those who have an intimate knowledge of the subject and to supply such knowledge to a practical effect that this demand will be created.

For instance, the State Medical Associations in America have done a splendid work in this respect.

These Associations have appointed Milk Committees who are empowered to grant a Certificate to the farmer and dairyman fulfilling their requirements.

I understand a similar movement is now being organized in London.

For the well-to-do and for sick persons requiring such supply these establishments in the country

where clean milk could be obtained would pay well, as with such assurance people would give a higher price for the milk.

One important condition of such Certificate is that the milk shall be delivered in sterilized sealed bottles from the storage coolers direct, and thus avoid contamination in transit and delivery.

The work of these State Associations in America have been the means of educating the public to demand a purer supply, and in consequence the farmer has been bound to supply it, and this has lead to a higher standard of production throughout the country. Would it not be an advantage to provide facilities in this country so as to be able to obtain certificated milk?

GENERAL INSPECTION OF FOOD SUPPLIES.

During the year 4,068 visits were made to shops in the Borough for the inspection of Meat and Food Supplies and in respect to the cleanliness of premises and stores.

These duties are now carried out by the two Food Inspectors, Messrs. W. Pearce and W. D. Carter.

Special attention has been paid to the inspection of meat, and that such regular and uniform inspection is undoubtedly an important question affecting the general health of the Borough is proved by the table appended.

By arrangement with the retail trade, early morning inspections of meat is made before the carcasses are "weighed in" by the butcher in cases where the carcasses have been slaughtered outside the Borough.

The wholesale fruiterers and greengrocers have followed out the system adopted last year as to the sale of "throw outs" sold to the hawkers, but notwithstanding the valuable assistance given, it has been found necessary to keep a strict supervision of the goods sold from hawkers' barrows.

On the score of so-called cheapness some housewives seem to be willing to purchase fruit and vegetables in any stage of rottenness, and as long as there is this demand, the hawkers will be found willing to run the risk of selling it.

The following quantities of meat and other foods were destroyed as diseased or unsound and unfit for human consumption:—

	lbs.
Butchers' Meat (diseased)...	5,480
„ „ (unsound)...	2,929
Fish and Poultry...	682
Fruit and Vegetables	...11,999

The following is a classified summary of the Food Purveyors' premises visited:—

Butchers' premises	...	...	...	3188
Fishmongers and Poulterers	...	...	...	385
Greengrocers	...	...	...	419
Grocers	...	...	...	76
Ice Cream Vendors' Premises	...	...	...	16
Hawkers' Carts	...	...	...	366

SLAUGHTER-HOUSES.

There are six slaughter-houses in the Borough.

During the year 502 inspections have been made and the regulations as to periodical lime-washing, cleansing, etc., carried out.

After careful consideration of the whole question your Authority have decided not to construct a public abattoir. The butchers in six instances have caused their slaughter-houses to be structurally improved, in three of which the premises have been re-modelled by building additions.

With the re-organisation of the Department it has been possible to make arrangements for the Food Inspectors to be present at the slaughter-houses on the principal days when slaughtering takes place. This, however, takes up some considerable time and necessitates both early morning and late night inspections having to be made.

The system of insurance adopted by the Master Butchers' Association last year has worked satisfactorily, and the arrangements made under your Authority have been a great advantage in securing a more complete supervision of the slaughtering of animals.

Great credit is due to the butchers for the ready co-operation and assistance they have given to the Inspectors in carrying out their duties.

It is to be hoped that the Association will, during the coming year, be able to adopt a somewhat similar insurance scheme relative to the slaughtering of pigs.

STABLES AND MEWS.

During the long hot summer months frequent inspections were made of the above premises with the view of minimising the nuisance and danger of the Common House Fly.

So far as can be ascertained this insect seems to be unnecessary except, perhaps, as a *bonne bouche* for birds.

Certainly as a scavenger it is not only a failure from an economic point of view, but a real source of danger as a disease carrier.

Its scavenging work appears to be principally that of transporting filth—and this of the most objectionable form—from places without the dwelling-house to the most important place within, viz.: the larder or food store.

The best preventive work for the extirpation of this nuisance is that your Local Authority should enforce compliance of the Bye-law to the removal of manure once a week and, on receipt of the instructions from the Committee this has been done, particularly from May to October.

There are 638 stables and mews in the Borough, affording accommodation for 1,502 horses and 26 donkeys, and it has been no light task to enforce the Bye-law in question.

Householders, as well as horse-keepers, have their responsibility in this matter, and it is important for them to remember that flies breed extensively in any house refuse, and such refuse as large quantities of waste paper, old rags, old bedding, etc., should not be allowed to accumulate, but should be burnt and back premises and yards cleaned and purified occasionally.

If these simple precautions were taken the number of flies in dwelling-houses during the summer and autumn months would be considerably diminished.

PRIVATE SCHOOLS.

A general inspection of the Private Schools in the Borough has been made during the year, the

classrooms measured up, and detailed particulars were taken regarding the cubic space, ventilation and sanitary arrangements.

The total number of schools inspected was 50, comprising 157 rooms. The number of scholars in attendance was 1,714.

It is satisfactory to report that only in one instance was overcrowding detected, and this was obviated by a re-arrangement of the classrooms and pupils.

In all, only ten nuisances were found to exist, and these were mostly of a minor nature, arising principally from defects in w.c.'s and flushing cisterns being out of order.

In one instance it was found necessary to give notice for the premises to be cleansed and purified throughout.

The works as ordered were forthwith carried out in each case.

HOUSE-TO-HOUSE INSPECTION.

During the year 360 houses have been inspected in the following Districts:—

District	1.	99.
„	2.	3.

NOTE.—A general house to house inspection of this District was instituted in 1904 for the purposes of new drainage and sewerage schemes and is still being proceeded with. For particulars see Winton Drainage.

„	3.	111.
„	4.	62.
„	5.	85.

These houses are mostly situate in those portions of the Borough which, after conference with the Medical Officer of Health, were considered to be in need of inspection first.

A complete record of the inspection of each dwelling-house has been entered in the house to house Register.

In this Borough, where the general housing of the working classes can be termed good, there are very few properties which do not come within the meaning of the term "reasonably fit for habitation."

Many of such houses also are found to have been occupied by the tenants previous to the passing of the Act or are above the rental value of £26.

It has, therefore, been found desirable to carry out the inspection of the District very much on the same lines as previously, when made under the Public Health Act, 1875, and to deal only with the properties under the Housing, Town Planning, etc., Act as occasion has necessitated.

The drainage and sanitary arrangements in each case were subjected to the smoke test, and notices have been served to remedy defects ascertained.

Where found necessary to reconstruct, all new drains were supervised and tested with water and the inside fittings with the smoke test.

These notices also included specifications of repairs found necessary as to water supply, w.c. accommodation, general conditions as to light, ventilation, dampness and cleanliness, the paving of yards, provision of ashbins, and general defects.

The two most contentious objections made by the owners of properties to the general standard of work as adopted by your Authority have been (1) the paving of the open space at the rear of the dwelling, and (2) the provision of portable ashbins.

In a large number of the smaller properties in this Borough the open space at the rear of the dwelling cannot be strictly defined as a backyard, passage, or open space.

The houses are mostly detached or semi-detached and possess a garden.

The footway from the back door to the out-buildings is usually made of local gravel, which binds hard, and a large number of the owners have contended that your Corporation have no power to enforce the substitution of impervious paving in these cases.

The question is now receiving the attention of your Town Clerk and, if possible, a Bye-law will be framed to meet the points in dispute.

Again, as to the provision of suitable ashbins there has been great difficulty in settling the question as to the liability of the owner or the occupier.

It has not been found necessary to serve notices under Sections 14 and 15 of the Housing and Town Planning, etc., Act, and the vexed question as to the definition of landlord (who may in the case of tenement be an irresponsible tenant) has not again been raised, nor has any case arisen where your Authority have had to execute repairs in default of the landlord.

- (1) Number of houses closed, the owners having elected to close the house instead of complying with the notice ... 6

(2) Total number of houses inspected	360
(3) Total number of Notices served to remedy defects ascertained ...	298
(4) Total number of Notices complied with	176
(5) Total number of Notices outstand- ing	122

Note.—In 67 cases the works are in hand at time of writing this Report.

DETAILED PARTICULARS OF REPAIRS, ETC., EXECUTED IN MAKING THE HOUSE-TO-HOUSE INSPECTION.

(1) Water Supply.	
(a) Taps provided direct from main ...	61
(b) Storage water cisterns cleansed and covered	79
(2) Closet Accommodation.	
(a) New w.c.'s.	29
(b) W.C.'s repaired or cleansed ...	83
(3) Drainage.	
(a) Drains re-constructed	56
(b) Drains repaired	78
(c) Soil and ventilating pipes repaired ...	28
(4) General Conditions as to:—	
(a) Light	81
(b) Additional ventilation	123
(c) Dampness	110
(d) Cleansing	148

(5) Yards.

(a) Paved and Drained	...	...	107
(b) Re-paved ...	...	...	24
(c) Footpaths only Paved	...	...	15

(6) Ashbins.

(a) Ashbins or Ashboxes provided	...	125
----------------------------------	-----	-----

(7) Separate Rooms Injurious to Health ... Nil.

(8) General Defects.

(a) New sinks provided	...	...	32
(b) Sink waste pipes trapped	...	...	120
(c) Ventilation under floors	...	...	111
(d) Windows, doors, grates, etc., re- paired	...	...	129
(e) New food stores provided	...	...	32
(f) Food stores repaired	...	...	54
(g) Rain-water gutters, etc., provided to w.c.'s and outbuildings	...	...	97
(h) Houses closed	...	...	6

A point the house-to-house inspection proves conclusively, is that some kind of legislation is required for the class of tenants who wilfully damage property after it has been put in a good state of repair by the owner, and who, also from neglect, default, or wilful acts, allow the premises to become filthily dirty.

It is not the respectable, law-abiding poor who from necessity must occupy the cheapest houses who are the difficulty to the landlord and Sanitary Authority, but it is the dirty, drunken, and dissolute persons, and it is for such that the Local Authorities should be armed with greater powers for protecting these persons against themselves, and for the enforcement of personal and household cleanliness.

The low standard of housing in the slums of some towns may be the cause of low health, low thinking, low living, and unemployment, but there is not the slightest reasonable excuse for the dirty conditions in our working-class dwellings, such as I regret is to be occasionally found even in a town like Bournemouth.

A reform of the habits and standard of cleanliness of the casually employed is greatly needed, and the question must sooner or later arise. "Should the unclean persons of known dirty habits be washed, cleansed, and disinfected by legislative force or enactments?"

District Sanitary Inspectors' Summary of Works.

1.—NUISANCES.

	District No. 1.	District No. 2.	District No. 3.	District No. 4.	District No. 5.	Total.
Complaints received and attended to	88	364	68	137	121	778
Number of Tests made for detec- tion of nuisances ...	23	8	71	83	110	295
Visits <i>re</i> abatement of nuisances	641	133	619	708	869	2070
General Inspections of District	62	36	47	38	21	204
Premises inspected	435	207	580	379	133	1734
Number of Nuisances detected...	87	97	100	108	116	508
Total number of nuisances abated... ..	120	234	93	105	91	643

2.—INFECTIOUS DISEASE.

Enquiries for Reports to M.O.H.	37	61	17	51	44	213
Premises tested	19	7	8	33	43	110
„ not tested	21	35	4	23	1	84
„ with defects ascertained	20	6	5	33	33	97
Nuisances detected	20	16	4	33	29	102
„ abated	17	9	5	21	2	51
Total No. of Visits	212	107	34	190	100	943

Total number rooms disinfected	47	36	49	59	74	265
Total number books disinfected	8	5	3	23	20	59
Rooms disinfected after Phthisis	22	5	27	20	15	89
Rooms disinfected after other non-notifiable disease ...	17	14	7	53	26	117

3.—NEW BUILDINGS.

Water tests ...	215	301	38	104	120	778
Number of re-tests ...	22	18	2	17	21	80
Smoke tests ...	192	265	21	42	73	593
Number of re-tests ...	15	6	2	4	15	42
Total visits...	446	694	61	163	277	1641
Number of reports made to B. I. re details of defects ascertained...	107	93	6	3	1	210

4.—PRIVATE INSPECTIONS.

Premises Inspected and Tested	36	31	101	59	60	287
Subsequent Water Tests ...	10	41	64	35	14	164
„ Smoke „ ...	13	24	46	44	30	157
Visits re Supervision of Works	287	130	872	365	182	1836
Total Visits ...	325	234	1083	509	257	2408

5.—HOUSE-TO-HOUSE INSPECTION OF DISTRICTS.

Total No. of Premises inspected	99	3	111	62	85	360
„ Notices served ...	78	3	111	36	70	298
„ „ complied with	28	0	71	31	43	176
„ „ works in hand	32	1	17	1	16	67
„ „ „ not completed at end of Dec., 1911	18	0	23	27	11	79
Number of re-tests, &c. ...	143	4	51	132	150	480
„ visits ...	491	6	529	300	474	1800
„ closing orders ...	0	0	0	0	0	0
„ closed by owner ...	0	3	3	0	0	6

WINTON DRAINAGE.

No. of Plans deposited, &c. ...	37
„ Water tests ...	68
„ Smoke tests ...	29
„ Visits ...	250

PRIVATE SCHOOLS.

Number inspected ...	15	5	5	12	9	46
„ rooms measured ...	21	13	45	39	22	110
Total visits ...	21	5	15	26	17	84
Number nuisances detected and abated...	2	0	2	3	6	13

DISINFECTION.

NOTIFIABLE DISEASE.

No. of Articles removed from Dwellings	...	...	...	832
„ „ Disinfected at Hospital	...	...	...	4618
„ Wards „ „ „	...	...	...	108
„ Times Drains flushed at Hospital	...	...	...	124
Special Visits by Inspector	...	...	...	263

NON-NOTIFIABLE DISEASE.

No. of Articles Disinfected after Phihisis	...	...	...	295
„ „ „ „ other non-notifiable Diseases	...	...	...	202
Special Visits by Inspectors	...	...	...	85
No. of Articles destroyed	...	...	...	32

COMMON LODGING-HOUSES.

There are only two registered common lodging-houses in the Borough.

The premises in both instances have been kept in clean and satisfactory condition, and no case of infectious disease has been notified.

The general supervision of these premises are under the control of the Police.

FRIED FISH SHOPS.

There are now ten of these shops in the Borough, and from time to time inspections have been made as to the cleanliness of premises, soundness of fish supplies and ingredients used in the trade.

In one instance structural improvements have been carried out to meet the notices served for storage, cooking, and ventilation.

INFECTIOUS DISEASE.

During the year 211 reports, as per under-mentioned table, have been made to the Medical Officer of Health as to infectious cases notified. .

The drainage and sanitary arrangements of the premises have been examined and tested, and 112 preliminary notices have been served on the owners and occupiers for the abatement of nuisances ascertained.

These notices have in all cases been complied with satisfactorily.

The house drainage and sewers have also been flushed and disinfected where necessary.

In cases nursed at home the District Inspector leaves a pamphlet form of suggestions at the house, giving particulars as to nursing, disinfection, penalties, etc.

REPORTS OF INFECTIOUS CASES.*

	Dist. 1	Dist. 2	Dist. 3	Dist. 4	Dist. 5	Tot.
Scarlet Fever ...	14	31	4	32	29	110
Diphtheria ...	6	16	13	6	9	50
Typhoid Fever ...	2	1	2	3	4	12
Erysipelas ...	6	12	3	5	8	34
Puerperal Fever ...	3	—	—	—	2	5
Continued Fever ...	—	—	—	—	—	—
Totals reported ...	31	60	22	46	52	211

Houses with defects ascertained ...	20	6	5	33	33	97
--	----	---	---	----	----	----

*Include Observation and Quarantine Cases.

WINTON AND MOORDOWN DRAINAGE.

The special work of re-draining houses to the public sewers has been proceeded with satisfactorily during the past year.

Since the year 1904, when the main outfall was completed, 3,107 houses (new and old properties) have been re-drained and connected up to the sewerage system, and 1,567 cesspools have been abolished and filled in.

The following works were executed during the year:—

- 66 Old houses have been provided with new system of drains and connected to the public sewers in place of cesspools, privy and pail closets system.
- 240 New houses have been erected in this district and drained to the public sewers.
- 27 New houses situate outside the Borough boundary have been erected in the Richmond Park district and drained to the Bournemouth system of sewerage.
- 25 Additions to premises have been erected and re-drained.

358 Total.

In respect to the old houses in the Winton District it is satisfactory to report that nearly all the houses have now been re-drained to the public sewers.

In February last I reported to your Authority that the drainage for 47 new dwelling-houses built under the Bye-laws were still connected into cesspools.

At the time of the approval of the plans by the Buildings Committee for the erection of these houses an undertaking was signed by the owners that they would, when called upon by your Authority, re-drain their premises to the newly-constructed sewers.

On a report being presented to the Buildings Committee as to these undertakings notice was served on the several owners and, in response, 36 have now been completed and the remaining 11 are now under consideration.

NEW SEWERS.

Properties in the Wynyard Road have been dealt with by the service of Preliminary Notices and of the total number of 45 houses in this road 20 have been re-drained, and the work at some of the remaining properties is at present in hand.

Nearly all the properties in this road have been constructed under the undertaking previously mentioned in this report.

In March last I reported on the advisability of sewerage the following short roads, and sewers have now been constructed in Somerley Road (1st section), Crichel Road, Evelyn Road (South), and Brassey Road (completion).

The work of dealing with the re-drainage of properties situated in these roads is being steadily proceeded with, and of the total number of 26 houses 16 have already been drained and the remainder are in hand.

Instructions have also been given by your Authority to sewer and make up under the Private Street Works Act, Oakwood Road, Moordown, comprising 18 properties.

MOORDOWN (OLD PART).

In March last I reported to your Authority on the sewerage and drainage of the old properties, numbering about 160 houses in the District of Moordown.

Your Committee resolved that the District be sewered and plans are now being prepared by the Borough Engineer's Department.

The house-to-house inspection and re-draining of the properties in this District are to be proceeded with as soon as the sewers are constructed.

POKESDOWN NEW SEWERS.

The following new sewers have been constructed in the Pokesdown District:—

Boscombe Manor Estate (sewers only).	
Grange Estate, Southbourne	do.
Bay View Road (extension)	do.
Carbery Estate (sewers and surface water drains).	
Heatherley Estate	do.

CESSPOOL DRAINAGE AT WINTON AND POKESDOWN.

During the year 1911 the following works have been executed in connection with the emptying of cesspools in the above-named Districts:—

WINTON DISTRICT.

Number of cesspools emptied	...	287
Number of loads of sewage removed		722
Number of cesspools condemned and filled in	... ..	68

POKESDOWN DISTRICT.

Number of cesspools emptied	...	25
Number of loads of sewage removed		7½
Number of cesspools filled in	...	1

It is satisfactory to report that the number of cesspools in these Districts are gradually being diminished, and during the past year it has only been necessary to use the patent exhaust cart for this work on an average of about three days per week.

There are at present about 96 cesspools in the Winton District and 14 cesspools in the Districts of Tuckton and Wick, which require periodical attention.

The greater portion of the sewage from the cesspools has been carted to the Strouden Farm and utilized on agricultural land.

Expenditure

	£	s.	d.
Three Corporation men at 25s. per week each for 6 months...	97	10	0
Two horses at 10s. per week each (keep only) ...	52	0	0
Painting and repairing cart ...	5	10	0
One 10ft. length of 2in. wired hose pipe (Merryweather) ...	3	5	0
Oil, Disinfectants, and Coke ...	7	8	4
	<hr/>		
	£165	13	4
	<hr/>		

Income.

	£	s.	d.
Amount received for hire of cart:—			
Winton District	5	10	0
Pokesdown Dis- trict	1	10	0
	<hr/>		
	7	0	0
	<hr/>		
Total cost of working cart for 6 months	£158	13	4
	<hr/>		

PIGGERIES.

WINTON AND MOORDOWN DISTRICT.

The piggeries have been periodically inspected during the past year.

There are at present seven piggeries, where 49 pigs are kept.

These piggeries are situated in the rural parts of the District and are kept in conformity with the Borough Bye-laws.

Three piggeries have been removed during the year.

Three complaints have been received and attended to during the year.

Since the Incorporation of this District the pig-keeping business has been steadily on the decline.

In the Annual Report for the year 1903 the number of piggeries in this locality was 106.

POKESDOWN DISTRICT.

Number of piggeries	15
Number of pigs kept when last inspection was made	161

All the piggeries are situated in the rural parts of the District and with one exception are in conformity with the Bye-laws.

PUBLIC MORTUARY.

The Public Mortuary, built at the Central Dépôt, was opened on March 28th, 1907.

There are three separate buildings, comprising the Coroner's Court, Mortuary, and Post-Mortem Room, all of which are fitted with the latest and most up-to-date arrangements. The general supervision of the premises is under the control of this Department, and printed Regulations as to the general management have been drawn up by your Sanitary Committee and sent to all the Medical men and Undertakers in the Borough.

From January 1st, 1911, to December 31st, 1911, the total number of Inquests was 47 and Post-Mortems 40.

The total cost as to working expenses for the year 1911, so far as this Department is concerned, is as follows:—

	£	s.	d.
Proportion of Attendants' wages for daily cleansing... ..	10	8	0
Attendance at Inquests and Post-Mortems	16	12	6

	£	s.	d.
Gas from December 19th, 1910, to December 19th, 1911, includ- ing meter rent and upkeep of burners	1	3	4
Disinfectants, Soap, Laundry, etc.	0	11	9
Post-Mortem Gloves	0	18	6
Mackintoshes	5	0	0
Instruments	6	15	3
	<hr/>		
	£41	9	4
	<hr/>		

N.B.—The water supply for the Mortuary, etc., is taken from the main supplying the Central Depôt and is not separately charged.

PUBLIC CONVENIENCES.

Working expenses of Public Conveniences from December, 1910, to December, 1911:—

Repairs to conveniences ...	60	10	10½
Wages paid to attendants ...	500	3	10
Gas and water, and hire of meters and automatic controllers ...	128	14	2
Disinfectants, Soap, Brushes, Laundry Work, etc. ...	45	18	4½
Painting conveniences ...	21	15	3
	<hr/>		
	757	2	6
	<hr/>		
Total Receipts...	926	5	2
„ Expenditure ...	757	2	6
	<hr/>		
Balance ...	£169	2	8
	<hr/>		

HOTEL CONVENIENCES.

At the Hotels and Public-houses where the conveniences are accessible to the general public the arrangements made by your Authority are still in force and continue to work satisfactorily.

Statement of Receipts from Public Conveniences from December, 1910, to December, 1911.

Convenience.	January		February		March		April		May		June		July		August		September		October		November		December		Totals												
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.											
Kniveton Gardens ..	0	0	10	0	1	1	0	0	5	0	1	1	5	0	1	8	0	4	6	0	2	1	0	3	5	0	0	11	0	1	11	1	4	10			
Westbourne ..	1	13	6	1	15	1	1	5	3	1	10	7	1	10	7	2	5	1	2	2	9	1	11	3	1	10	0	1	7	3	19	9	2				
Poole Hill ..	1	19	8	1	7	8	1	5	7	1	13	9	1	14	2	2	15	6	3	5	5	1	16	4	1	7	10	1	5	5	22	12	1				
The Triangle ..	1	16	0	1	5	10	1	4	5	1	12	7	1	10	4	1	2	11	3	3	13	0	1	17	2	1	7	8	1	7	0	21	14	10			
Bourne Avenue ..	2	4	3	1	13	4	1	17	7	2	9	7	2	14	11	4	4	11	4	6	1	2	14	10	2	1	6	1	11	10	31	8	11				
Engine House ..	0	7	11	0	7	11	0	8	1	0	18	4	0	16	2	2	8	2	1	17	1	0	13	8	0	6	6	0	7	2	10	17	9				
Pier Approach ..	2	14	1	2	8	2	2	11	3	5	6	4	6	3	6	7	10	13	6	4	0	2	12	11	2	2	12	11	2	2	70	6					
Ladies' No. 1 ..	8	16	2	8	5	6	7	18	8	16	10	8	12	11	9	17	9	27	9	27	18	2	13	8	0	6	3	11	17	17	7	7					
Ladies' No. 2 ..	4	2	3	4	5	10	4	15	0	12	13	2	10	12	6	36	9	30	14	36	9	0	30	14	2	3	18	10	2	1	2	156	2	7			
Lansdowne ..	2	16	1	2	5	4	2	1	2	3	6	7	2	17	10	7	1	8	7	7	1	8	6	14	4	7	6	2	19	3	2	8	11	45			
Horse Shoe ..	1	3	5	1	0	10	1	3	8	1	4	8	1	4	11	1	17	11	1	17	11	2	3	6	1	4	7	1	2	3	16	14	3				
Carnarvon Crescent ..	2	1	11	1	10	1	1	12	8	2	3	0	1	18	5	3	3	3	3	2	2	2	2	9	8	1	18	10	1	18	2	26	5	1			
King's Park, Gents' ..	0	8	2	0	5	6	0	5	1	0	7	4	0	6	10	0	8	9	0	14	5	0	7	4	0	5	2	0	5	4	4	10	11				
" " Ladies' ..	0	2	0	0	1	11	0	2	10	0	2	7	0	3	11	0	4	3	0	4	5	0	3	7	0	2	1	0	1	11	2	0	0				
Boscombe Gardens, Ladies' ..	0	13	1	0	13	11	0	15	4	1	13	3	1	6	4	2	3	1	7	6	8	0	2	4	11	0	15	5	0	8	1	26	16	2			
" " Gents' ..	0	10	6	0	8	2	0	10	9	1	6	4	1	0	11	1	8	10	5	2	6	3	12	6	1	10	1	0	13	9	0	8	9	18	9		
Boscombe Cliff Gardens, Ladies' ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
" " Gents' ..	0	1	4	0	0	6	0	0	7	0	5	9	0	10	9	0	9	0	5	2	0	11	11	0	4	5	0	2	11	0	2	1	2	6	6		
" " Lawn Tennis ..	0	7	4	0	9	0	0	10	3	1	1	1	0	18	5	0	18	0	0	13	7	1	7	9	0	16	0	7	7	0	8	5	8	19	6		
Bournemouth " " ..	0	4	2	0	4	2	0	9	5	0	12	5	0	6	6	0	17	11	0	4	7	0	12	6	0	12	5	0	7	3	0	5	1	5	0	0	
Alum Chine ..	1	0	2	0	19	8	1	4	11	3	0	9	2	9	6	3	13	0	7	14	10	8	4	0	3	5	2	0	14	11	0	11	9	35	15	1	
Durley Chine ..	0	15	0	0	14	4	0	18	1	1	10	9	1	8	9	1	8	5	7	12	11	2	5	8	1	6	2	0	15	0	10	9	14	10	0		
Meyrick Park, Ladies' ..	0	3	4	0	1	11	0	2	5	0	5	2	0	3	8	0	10	11	0	14	0	0	5	1	0	5	4	0	2	9	0	2	2	5	6	5	
" " Gents' ..	0	1	6	0	0	11	0	0	11	0	2	8	0	2	5	0	6	9	0	6	9	0	2	11	0	1	0	0	1	0	1	5	1	13	8	8	
Cemetery, Ladies' ..	0	12	5	0	11	4	0	10	10	0	18	9	0	15	4	0	13	8	0	7	4	1	6	0	11	0	10	8	0	14	6	7	18	6			
" " Gents' ..	1	5	4	0	0	11	0	18	10	1	9	6	1	3	3	1	15	9	1	7	10	1	18	7	1	9	1	1	1	6	1	5	3	14	19	11	
Westover Road, Ladies' ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
" " Gents' ..	2	12	6	1	17	9	1	17	10	2	5	6	2	14	11	3	19	11	20	0	6	22	11	4	11	19	10	7	2	4	7	14	2	80	17	0	
Durley Road, Gents' ..	0	1	10	0	2	8	0	2	10	0	3	5	0	15	4	0	4	11	12	9	6	14	18	11	7	2	4	0	2	3	11	7	65	14	6		
East Cliff, Ladies' ..	0	14	5	0	15	5	0	8	11	1	5	4	0	16	9	1	11	4	0	5	3	0	5	10	0	6	6	0	2	6	0	2	7	2	16	8	
" " Gents' ..	0	4	0	0	4	10	0	4	4	0	13	9	0	8	6	0	16	5	2	11	0	2	2	1	7	1	2	0	0	9	7	0	8	5	13	5	4
Fisherman's Walk, Ladies' ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
" " Gents' ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Fisherman's Walk, Ladies' ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
" " Gents' ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Holdenhurst Road, Gents' ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
TOTAL	39	13	23	34	17	135	7	11	66	19	11	57	12	183	11	5	99	5	2172	3	6170	15	180	17	145	1	340	1	6926	5	2	—	—	—	—	—	

WATER METERS.

The following is a comparative statement of the consumption of water supplied by the Gas and Water Company to your Authority for the years 1910 and 1911:—

Situation of Meter.			Consumption in 1910.	Consumption in 1911.
Cabstand, Littledown Road	...	...	5,700	13,000
" St. Swithun's Road	...	...	12,200	12,300
" Waverley Road	...	...	10,400	13,900
Fire Station, Holdenhurst Road	...	...	88,900	112,900
Cabstand, Meyrick Road	...	...	19,000	17,400
" Madeira Road	...	...	23,900	21,900
Borough Offices	...	...	177,500	184,700
Yelverton Chambers	...	...	24,700	30,600
West Gardens Tennis	...	...	5,900	11,500
Corporation West Yard	...	...	67,700	82,000
Wharf Road Depot	...	...	54,700	53,600
Drinking Trough, Chine Road	..	..	203,100	103,200
Cabstand, Durley Road	..	...	4,100	6,200
" West Cliff Road	..	...	13,400	27,800
" No. 1, West Cliff	...	..	19,000	18,500
" Exeter Road	..	...	9,100	14,900
West Fire Station	..	...	21,400	27,200
Mess Room, Westover Gardens	..	..	3,700	31,600
Engine House in Gardens	..	...	921,200	1,019,400
Lansdowne Drinking Trough	..	..	75,900	72,500
Cabstand, Charrminster Road	..	..	6,400	7,100
Cemetery, Wimborne Road	...	..	113,200	189,900
The Refuse Destructor	..	...	51,700	135,800*
Alum Chine Cliff Gardens	..	..	18,900	49,600
Cabstand, Gervis Road	...	...	3,000	4,700
" Derby Road	..	...	6,900	8,500
Knyveton Road	...	...	3,700	4,200
Boscombe Gardens	..	..	49,500	93,100
East Yard	..	...	299,000	354,200†
Cabstand, Spa Road	..	..	18,400	15,800
" Adeline Road	..	...	11,900	11,900
" Palmerston Road	..	...	3,000	8,200
Boscombe Depot	..	...	34,800	90,100
King's Park	..	...	20,500	134,600
East Cemetery	...	...	71,000	139,000
Sanitary Hospital	...	..	581,400	634,800
Parkwood Road	..	Flushing Meters	94,000	98,400
Queensland Road	...	" "	13,400	19,400
Rosebery Road	...	" "	23,400	18,400
Clarence Park Road and Fountain	"	" "	10,100	20,200
Stourwood Avenue	...	" "	2,000	—
Clifton Road	..	" "	43,400	17,500
Stourwood Road	..	" "	7,900	11,000
Fountain, Parkwood Road	...	..	28,100	28,800
Boscombe Cliff Gardens	..	...	40,200	82,400
Wharnclyff Road	...	...	10,800	8,800
Electric Car Sheds	...	...	183,100	163,700
Knyveton Gardens	..	..	13,000	39,900

* 77,600 Recoverable from Contractors.

† 20,000 Recoverable from Builders.

	Consumption in 1910.	Consumption in 1911.
Meyrick Park Pavilion and Mr. Curtis' Workshop ..	118,800	110,700
*Golf Clubs, and Caddies' Shelter	167,100	111,200
Bourne Avenue Cabstand	45,700	44,600
Urinal, Westbourne	73,200	72,600
" Triangle	89,300	110,100
" Bourne Avenue	115,000	78,900
Ladies' Lavatory, Exeter Lane	115,200	92,000
Winter Gardens	247,400	484,500
Urinals, facing Pier	262,000	224,400
The Pier	208,100	229,500
" (Special for Boats)	132,000	223,000
Urinal and Cabstand, The Westover ..	119,300	259,300
Urinal and Cabstand, Firs Glen	84,500	118,200
" Lansdowne Creseent	102,700	117,400
Urinal and Fountain, Boscombe Gardens...	91,200	135,100
Urinal, Carnarvon Crescent	111,400	114,500
Bournemouth School	64,000	106,000
Mess Room at Tram Sheds	98,200	102,400
Gervis Road Drinking Trough	15,700	15,800
Bowling Green, Meyrick Park	44,600	32,800
Christchurch Road Depôt	53,100	74,500
West Refreshment Rooms (recoverable) ..	53,800	60,800
East Refreshment Rooms (recoverable) ..	54,900	58,600
Poole Hill Urinal	80,200	31,800
Alum Chine	63,700	70,600
Durley Chine... ..	15,100	33,600
Boscombe Pier	67,000	127,900
The Square, for watering lines	6,200	6,700
Queen's Park Caddies' Shelter	28,500	29,700
Winton Recreation Grounds	49,200	158,400
Boscombe Refreshment Rooms (recoverable) ..	6,800	4,300
Pokesdown Tram Sheds	105,700	109,900
Argyll Gardens	30,100	97,400
Fountain, East Beach	9,100	27,400
Fountain, West Beach.. ..	14,200	22,200
Moordown Car Sheds	27,900	25,000
Queen's Park Golf Pavilion (recoverable) ..	109,600	95,400
Queen's Park Golf Links	123,800	441,300
East Beach Convenience	289,100	367,600
West Beach Convenience	224,500	262,600
East Cliff Urinal	30,200	36,100
Queen's Park Rifle Range	4,500	5,200
Nursery, King's Park	4,500	15,200
Alum Chine Refreshment Room (recoverable) ..	9,800	12,100
Durley Chine Refreshment Room (recoverable) ..	3,900	6,600
Pavilion, Winton Recreation Ground	21,000	25,200
Cromweil Road Urinal.. ..	13,900	8,500
Durley Road Gents.	9,800	9,700
King's Park Cricket Pitch	3,300	14,100
Total ..	7,350,400	9,348,500

*This meter supplies Bournemouth Golf Club, Meyrick Park Golf Club, which are recoverable, and also Caddies' Shelter, Meyrick Park.

The total decrease on the various meters since the system of checking the meters has been in force is 8,814,300 gallons, an average gain of 1,259,186 gallons per annum.

The above list does not include the meter for Electric Generating Station, as the water used for the boilers since June, 1904, has been obtained from artesian well. The consumption of water from the Company's supply for the seven years is as follows:—

1905	1906	1907	1908	1909	1910	1911
4,000	6,000	12,000	138,000	7,000	11,000	36,000

The increase in 1908 and 1911 was due to defective pump for artesian well.

STATEMENT OF ACCOUNTS.

Accounts rendered for:—	£	s.	d.
Sanitary inspections	270	18	0
Maintenance of patients at the Sanitary Hospital	214	3	10
Conveyance of patients to Sanitary Hospital and collecting and re- turning articles disinfected ...	9	4	0
Disinfection after non - notifiable disease	53	19	9
Cleansing of w.c.'s, etc., at Public Elementary Schools	72	0	0
Meter checking at Public Elementary Schools	9	0	0
Books, etc., as required by the Mid- wives Act	0	1	10
Rat Catcher's services	26	16	2
Ambulance hire	5	6	0
Disinfectants supplied	0	5	6
Cleansing Hotel urinals	26	0	0
Amount recovered for water used by Contractors at Refuse Destructor and Sanitary Hospital	5	4	9

	£	s.	d.
Cleansing sewer at Pine Tree Glen and Wolverton Mews	0	17	0
Special Removal of Refuse to Refuse Destructor	1	13	0

REPORT

ON THE WORKING OF THE

SALE OF FOOD AND DRUGS ACT, 1875-1907,

During the Year 1911.

The duties relating to the above Acts have been re-arranged, due to the re-organization of the Department before referred to in the Report.

The Borough has been divided into two Districts for the purpose of this Act, Mr. W. D. Carter being appointed as Inspector to No. 1 District and Mr. W. Pearce, to No. 2. A more systematic sampling is now possible, as the area allotted to each Inspector is but one-half of what it was under the former arrangement.

Special care and attention have been given to the sampling, and particularly with regard to the milk supplies. One hundred and nine formal samples of the latter were taken and submitted to the Public Analyst, but these samples were in many instances weeded out by the Inspectors after the supplies had been tested and checked by the Gerber test. Two hundred and twenty-eight samples were subjected to this latter test by the Inspectors.

Your Authority will note that the number of adulterated samples is the lowest but one on record, but the number of prosecutions has increased.

1910			1911		
	Adulter- ated. Per cent.	Poor or Doubtful. Per cent.		Adulter- ated. Per cent.	Poor or Doubtful. Per cent.
Official ...	5.24	15.0	Official ...	8.0	16.0
Unofficial	15.0	3.0	Unofficial	7.07	11.1
Total ...	9.3	8.0	Total ...	7.77	14.8

During the year 1911 a total of 399 samples of various foods and drugs were purchased, of which number 300 samples were formally purchased or taken in accordance with the provisions of the Acts; and 99 samples were purchased informally and submitted as "test samples" to the Analyst.

Of 399 samples, 309, or 77.43 per cent., were reported genuine; 59, or 14.8 per cent., poor or doubtful quality; and 31, or 7.77 per cent., adulterated or in some way deficient.

Tables shewing the various articles analysed during the year, with the results of analyses, will be found in the Public Analyst's Report, Tables II. and III.

MILK.

One hundred and nine samples of milk were officially purchased, or taken, and submitted to the Public Analyst, who reported adversely upon six of the samples. Four of the adulterated samples were deficient in cream to the extent of 2, 20, 25, and 9 per cent. respectively, and legal proceedings were instituted against the vendors in the cases of the three larger deficiencies. In each case the warranty defence was pleaded and was successful in two cases; in the third case the vendor was convicted and fined fifteen shillings and costs.

The remaining two adulterated samples contained 10 and 9.75 per cent. of added water respectively. . These samples were obtained at the houses of two private purchasers for the purpose of supporting legal proceedings against a dairyman for "obstructing" and "refusing to sell" to the officer appointed under the Sale of Food and Drugs Acts. This vendor was subsequently convicted and fined twenty shillings and costs for "obstructing" the Inspector, a similar penalty being imposed for "refusing to sell."

Two hundred and twenty-eight samples of milk have been examined by the "Gerber Test" by your Inspectors. These samples, with a few exceptions, were taken at the railway stations and dairies in the town from consignments of milk supplied under contract to local dairymen.

As in previous years, the samples examined have afforded useful information as to the quality of the milk sent into Bournemouth—both morning and evening supplies being included in the number examined, and a representative selection of producers covered.

In the cases of six supplies the quality of the milk fell below the minimum standard, and a warning letter, calling the attention of the farmer to the deficiency, was sent in each case. Subsequent to this action further samples were taken from these supplies, and all proved satisfactory.

BUTTER.

Forty-one samples were purchased during the year and four were found to be adulterated. These latter contained from 70 to 100 per cent. of margarine and were all "test samples," three being

purchased from a vendor who was subsequently fined two pounds, including costs, for selling margarine in an unmarked wrapper.

CREAM.

Of the thirteen samples of cream taken nine were boracised and, as declaration of the presence of boric acid was only given in two cases, seven samples were reported by the Public Analyst as being adulterated.

Dr. J. M. Hamill, in his report to the Local Government Board on "The use of Preservatives in Cream," recommends (1) that the presence of preservatives should in all cases be adequately declared to the purchaser, and (2) that "in the case of boracised cream the maximum amount of boron preservative . . . should be 0.4 per cent. from May to October inclusive, and 0.25 per cent. during the remainder of the year."

In July last a circular letter was sent by the Medical Officer of Health to all local dairymen, directing attention to the recommendations embodied in Dr. Hamill's report.

HONEY.

Eleven samples were purchased early in the year, and though the honey yield of 1910 was a very poor one all the samples were reported free from glucose and unadulterated.

PRESERVED FRUITS.

Thirteen samples of tinned fruits and eleven samples of dried fruits were submitted for analysis. Five of the former were reported as being of doubt-

ful quality, by reason of the presence of tin, and in two cases in which the proportion of metallic impurity approximated to one grain per pound intimations were given by the Medical Officer of Health to the vendors of the presence of tin in the samples.

Ten of the eleven samples of dried fruits—the exceptional sample being prunes—contained a sulphite preservative and were therefore reported doubtful.

SAUSAGES.

Twenty-seven samples of this article of food were purchased and sixteen were found to contain preservative—boron compounds. In three cases the proportion of boric acid present was greatly in excess of the maximum, 0.25 per cent., and legal proceedings were instituted against the vendors, two of whom were fined ten shillings and costs and one twenty shillings and costs.

SWEETS.

Nine samples of sweets, chiefly coloured varieties, were submitted to the Public Analyst. None contained any trace of arsenic. A sample of milk chocolate was found to contain 0.019 grains of lead per pound and a large quantity of starch, and a warning letter was sent by the Medical Officer of Health to the vendor of the sample.

DRUGS.

Thirty-nine samples of drugs were purchased during the year—twelve samples of glycerine and

thirteen samples of compound liquorice powder officially, and fourteen samples of Gregory's Powder as "test samples." One of the latter samples was reported adulterated.

In obtaining samples of drugs due attention has been given to "penny packets" and "penny bottles" lines.

PRESERVATIVES AND COLOURING MATTERS.

The following table shows the number of articles analysed during 1911, which were reported by the Analyst to contain some preservative or colouring matter:—

No. of samples analysed.	No. containing Preservative.					Remarks.
	Article.	Boric acid.	Sulphitis.	Copper Salts.	Colour.	
OFFICIAL SAMPLES.						
109	New Milk ..	—	—	—	88	Annatto colouring: mere traces to excessive amounts.
2	Separated Milk ..	—	—	—	2	Annatto colouring: traces
12	Cream ..	8	—	—	—	0·16 to 1·22 per cent.
15	Butter ..	4	—	—	—	0·15 to 0·34 per cent.
27	Sausages ..	16	—	—	—	0·06 to 1·02 per cent.
11	Dried Fruits ..	—	10	—	—	Equivalent to 0·83 to 1·86 grains per lb. of sulphurous acid.
9	Sweets ..	—	—	—	5	One sample was coloured with an aniline dye, and the others with vegetable colours or cochineal.
2	Lemon Crystals ..	—	—	—	1	Aniline yellow.
UNOFFICIAL SAMPLES.						
26	Butter ..	4	—	—	—	0·12 to 0·25 per cent
1	Cream ..	1	—	—	—	0·75 per cent.
12	Demerara Sugar ..	—	—	—	1	Coal tar dye.
1	Preserved Peas ..	—	—	1	—	Sulphate 1·95 grain per lb.
227		33	10	1	107	

LEGAL PROCEEDINGS.

Twelve summonses were taken out during the year. In ten cases convictions followed, and the remaining two were dismissed.

Table I. below shows details as to penalties, costs, etc., in relation to legal proceedings instituted in regard to samples reported against by Public Analyst. Table II. shows similar details of legal proceedings instituted in respect of offences other than adulteration.

Table I.

Legal Proceedings Instituted in Respect of Samples Reported Against by Public Analyst.

Sample No.	Article.	Nature and extent of adulteration.	Result of Legal Proceedings.	Fines.	Costs.
18a	Coffee.	Contained 40 per cent. chicory.	Conviction.	1 3 6	0 16 6
43	Coffee.	Contained 40 per cent. chicory.	Conviction.	0 2 6	
57	Milk.	Deficient in milk fat to the extent of 0.06 per cent.	Dismissed on proof of warranty.		
91	Milk.	Deficient in milk fat to the extent of 0.75 per cent.	Dismissed on proof of warranty.		
67a	Sausages.	Contained 0.77 per cent. excess of boric acid.	Conviction.	1 0 0	0 19 6
69a	Sausages.	Contained 0.44 per cent. excess of boric acid.	Conviction.	0 10 0	0 16 6
100	Sausages.	Contained 0.59 per cent. excess of boric acid.	Conviction.	0 10 0	0 16 6
116	Milk.	9 per cent. deficient in cream.	Conviction.	0 15 0	1 2 6
145	Self Raising Flour.	1 per cent. excess of calcium Sulphate.	Conviction.	2 0 0	1 0 6
				<hr/> 6 1 0	<hr/> 5 12 0

Table II.

Legal Proceedings Instituted in Respect of Offences
other than Adulteration.

Date of Offence.	Nature of Offence.	Result of Legal Proceedings.	Fines.	Costs.
1/4/11.	Selling margarine by retail in unmarked package (S. 6, Margarine Act, 1887).	Conviction.	1 3 6	0 16 6
20/7/11.	"Refusing to sell" to Inspector (S. 17, Sale of Food and Drugs Act, 1875).	Conviction.	1 0 0	0 7 0
20/7/11.	"Obstructing" Inspector (S. 16, Sale of Food and Drugs Act, 1899).	Conviction.	1 0 0	0 7 0
			<hr/> 3 3 6	<hr/> 1 10 6

This year has been one of real progress, and I have much pleasure in testifying to the ready and cheerful assistance rendered by the Inspectors and Staff in carrying out the numerous duties now devolving upon the Department.

Also I beg to sincerely thank the Chairman, Vice-Chairman, and all members of the Sanitary Committee for the careful and thorough deliberation of the various questions brought before their notice, and for the support they have rendered to the Department at all times to enforce the provisions of the Public Health Acts and enforce the Regulations of the Borough.

I have the honour to remain,

Mr. Mayor and Gentlemen,

Your obedient servant,

WM. GEO. COOPER,

Chief Sanitary Inspector.

COUNTY BOROUGH OF BOURNEMOUTH.

ANNUAL REPORT

OF THE

PUBLIC ANALYST

For the Year ending 31st December, 1911.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

Gentlemen—

I have the honour of presenting my report on the analysis of the samples of Food and Drugs sent to me during the year 1911.

The total number of samples was 399, of which 300 were taken officially under the provisions of the Food and Drugs Acts, and 99 were unofficial or “test” samples.

It is a matter of great satisfaction that the proportion of adulterated samples has fallen to 7.77 per cent., this being with one exception only (5.24 per cent. in 1909) the lowest percentage I have yet recorded in the Borough. The *average* proportion of adulterated samples during the previous five years has been 8.91 per cent.

On the other hand, the proportion of “poor” or “doubtful” samples has risen to 14.8 per cent., being the largest proportion recorded. The average of the previous five years was 11.74 per cent.

Of the adulterated samples 24 were “official” and seven “unofficial,” corresponding to 8 per cent. and 7.07 per cent. respectively, whilst 48 (or 16 per cent.) of the official samples and 11 (or 11.1 per cent.) unofficial samples were “poor” or “doubtful.”

Table I. shows the comparison of these results with those of the previous nine years:—

Table I.

Year	Adulterated	Poor or Doubtful
1902.	15.8 per cent.	11.8 per cent.
1903.	12.3 „ „	9.0 „ „
1904.	16.6 „ „	14.3 „ „
1905.	14.0 „ „	11.6 „ „
1906. (official)	9.0 „ „	13.3 „ „
„ (unofficial)	18.0 „ „	10.0 „ „
„ (total)	11.25 „ „	12.5 „ „
1907. (official)	8.0 „ „	14.0 „ „
„ (unofficial)	12.0 „ „	9.0 „ „
„ (total)	9.0 „ „	12.75 „ „
1908. (official)	7.0 „ „	12.0 „ „
„ (unofficial)	18.0 „ „	16.0 „ „
„ (total)	9.75 „ „	13.0 „ „
1909. (official)	4.33 „ „	13.72 „ „
„ (unofficial)	8.14 „ „	8.14 „ „
„ (total)	5.24 „ „	12.4 „ „
1910. (official)	7.38 „ „	9.73 „ „
„ (unofficial)	15.0 „ „	3.0 „ „
„ (total)	9.3 „ „	8.04 „ „
1911. (official)	8.0 „ „	16.0 „ „
„ (unofficial)	7.07 „ „	11.1 „ „
„ (total)	7.77 „ „	14.8 „ „

Tables II. to V. show in greater detail the results obtained with the official and unofficial samples respectively:—

Table II.

Summary of Annual Report, 1911 (300 official samples):—

Nature of Sample.				Examined.	Genuine.	Poor or Doubtful.	Coloured.	Containing Preservative.	Adulterated	Percentage adulterated
New Milk	..	..	..	109	80	23	88	—	6	5·5
Separated Milk	..	..	..	2	2	—	2	—	—	—
Cream	..	..	..	12	6	—	—	8	6	50·0
Butter	..	...	..	15	15	—	—	4	—	—
Milk-blended Butter	..	..	..	1	1	—	—	—	—	—
Margarine	..	..	..	1	—	1	—	—	—	—
Lard	..	..	..	6	6	—	—	—	—	—
Dripping	..	..	..	1	1	—	—	—	—	—
Coffee	...	..	..	12	10	—	—	—	2	16·66
Sugar	..	..	..	1	1	—	—	—	—	—
Bread	..	..	..	10	10	—	—	—	—	—
Self-raising Flour	..	...	..	18	17	—	—	—	1	5·55
Baking Powder	...	...	...	7	3	3	—	—	1	14·29
Tinned Fruit	..	..	..	13	8	5	—	—	—	—
Dried Fruits	..	...	...	11	1	10	—	10	—	—
Honey	...	..	..	11	11	—	—	—	—	—
Sausages	...	..	..	27	19	1	—	16	7	25·92
Cyder	..	..	..	6	6	—	—	—	—	—
Sweets	..	..	..	9	8	1	6	—	—	—
Lemon Crystals	...	..	..	2	—	1	1	—	1	50·0
Sherbet	..	..	..	1	—	1	—	—	—	—
Glycerine	..	...	..	12	12	—	—	—	—	—
Comp. Liquorice Powder	...	...	...	13	11	2	—	—	—	—
				300	228	48	97	38	24	8·0

Table III.

Summary of Annual Report, 1911 (99 unofficial samples):—

New Milk	..	..	..	1	—	1	—	—	—	—
Butter	..	..	...	26	22	—	—	4	4	15·4
Lard	...	...	..	14	14	—	—	—	—	—
Vegetable Lard	..	..	..	1	1	—	—	—	—	—
Cream	...	..	...	1	—	—	—	1	1	100·0
Suet	...	..	...	8	4	4	—	—	—	—
Demerara Sugar	...	..	..	12	11	—	1	—	1	8·33
Flour	..	..	..	1	1	—	—	—	—	—
Self-raising Flour	...	...	...	1	1	—	—	—	—	—
Preserved Peas	..	..	..	1	—	1	1	—	—	—
Essence of Anchovy	..	...	...	7	7	—	—	—	—	—
„ Shrimp	..	..	..	1	1	—	—	—	—	—
Soda Water	..	..	..	11	10	1	—	—	—	—
Gregory's Powder	..	..	..	14	9	4	—	—	1	7·14
				99	81	11	2	5	7	7·07

Tables IV. and V. show details of the adulterated samples:—

Table IV.

Adulterated official samples.

No.	Nature of Sample.	Nature of Adulteration.	Observations.
56	New Milk ..	2 per cent. deficient in Cream	Legal proceedings instituted against vendor; summons dismissed on proof of S. 17 Sale of Foods and Drugs Act, 1875.
57	" ...	20 " " "	
71a	" ..	10 per cent. added Water	Vendor fined £1 and costs; S. 16 Sale of Foods and Drugs Act, 1899.
72a	" ..	9 $\frac{3}{4}$ per cent. " "	Vendor fined £1 and costs.
91	" ..	25 per cent. deficient in Cream	Summons dismissed on proof of warranty.
116	" ..	9 per cent. " "	Vendor fined 15s. and costs.
56a	Cream ...	·23 per cent. Boric Acid	No declaration on label disclosing addition of Boric Acid.
57a	" ...	1·2 per cent. " "	do.
58a	" ..	·24 per cent. " "	do.
59a	" ..	·26 per cent. " "	do.
85	" ..	·16 per cent. " "	do.
86	" ..	·34 per cent. " "	do.
18a	Coffee ...	40 per cent. chicory.	Vendor fined £2 including costs.
43	" ...	40 per cent. chicory.	Vendor fined 2/6 including costs.
14a	Baking Powder ..	13 $\frac{1}{2}$ per cent. calcium sulphate	—
145	Self Raising Flour ..	1 per cent. excess calcium sulphate.	Vendor fined £2 and costs.
67a	Sausages ..	·57 per cent. excess boric acid	Minimum allowed ·25 per cent Vendor fined £1 and costs.
68a	" ..	·25 per cent. " "	—
69a	" ..	·44 per cent. " "	Vendor fined 10s. and costs.
95	" ..	·24 per cent. " "	—
100	" ..	·59 per cent. " "	Vendor fined 10s. and costs.
167	" ...	·07 per cent. " "	—
172	" ..	·11 per cent. " "	—
95a	Lemon Crystals	Contained only 3 $\frac{1}{4}$ per cent. tartaric acid, ·011 grain lead per lb.	Lead was equivalent to 1/3rd grain in 1 lb. of tartaric acid used.

Table V.

Adulterated unofficial samples.

No.	Nature of Sample.	Nature of adulteration.	Observations.
14	Butter.	70 per cent. margarine.	Official sample taken subsequently and vendor fined £2 including costs for selling margarine in unmarked package.
27	"	Consisted of margarine.	
28	"	"	
58	"	"	
42	Cream.	35 per cent. excess boric acid.	Maximum allowed 40 per cent.
17	Demerara Sugar	Consisted of "Yellow Crystals"	Official sample taken later proved genuine.
78	Gregory's Powder	Contained magnesium carbonate in place of oxide.	

I desire to draw attention to certain points of interest in connection with the results of the analyses of the official and unofficial samples.

MILK.

Excluding the six adulterated samples, the average results of the 104 samples have been: Milk fat, 3.47 per cent.; "non-fatty solids," 8.87 per cent. *Including* the adulterated samples, the averages were 3.43 per cent. and 8.84 per cent. respectively.

The averages for the four quarters of the year have been:—

	Samples.	Fat.	Non-Fatty Solids.
1st quarter.	14	3.52%	8.85%
2nd ,,	32	3.37%	8.95%
3rd ,,	31	3.60%	8.83%
4th ,,	27	3.43%	8.84%

These figures for non-fatty solids are similar to those of 1910, but the proportion of fat is lower in each quarter of 1911 as compared with the same season of 1910.

The average of genuine new milk is fat 3.75 per cent., non-fatty solids 8.88 per cent.

I have again to direct attention to the enormous proportion of coloured samples, viz., 80.8 per cent., the colour used being in all cases Annatto. Action on the lines suggested in my last Annual Report would seem to be desirable.

The six adulterated samples were as follows:—

	Added water.	Deficient in fat.
5 per cent. or under	—	1
Over 5 per cent. but under 10 per cent.	1	1
Over 10 per cent. but under 20 per cent.	1	—
Over 20 „	—	2

Every sample was tested for preservatives, but in no case was any found.

BUTTER.

Forty-one samples were taken during the year and of these four unofficial samples were found to consist of margarine, all the official samples being genuine. The proportion of water varied from 8.10 to 15.85 per cent., with an average of 12.7 per cent. Eight of the samples contained Boron preservative in amount equivalent to from .12 to .34 per cent. of Boric Acid.

The samples of Butter, as well as those of Margarine, Lard, and Dripping, were all tested for Paraffin, which was in no case found to be present.

CREAM.

Thirteen samples were taken, and of these nine contained Boron preservative, although only two bore a label declaring its presence, the remaining

seven must therefore be considered as adulterated. I am of opinion that the presence of a label declaring the quantity present should be rigidly enforced, and that any samples found to contain more than the maximum suggested in the Local Government Board Food Report, No. 10, should form the subject of a prosecution. This Report of Dr. Hamill's certainly does not err on the side of stringency, and therefore should be strictly interpreted.

The proportions of Boric Acid varied from .16 per cent. to 1.2 per cent., all except No. 57a and No. 42 (unofficial) being below 0.4 per cent. No. 57a contained $5\frac{1}{4}$ grains in each ounce and No. 42 $3\frac{1}{4}$ grains.

BAKING POWDER AND SELF-RAISING FLOUR.

In the early part of the year Dr. J. M. Hamill's Report on the presence of Calcium Sulphate in Baking Powder and Self-raising Flour was published by the Local Government Board. In this report he makes the following recommendations:—

“(a) Manufacturers of Acid Phosphate should not prepare even their cheapest qualities of Acid Phosphate for sale as a food ingredient in such a way that it contains more than 10 per cent. of Calcium Sulphate, and should be in a position to guarantee that this figure is not exceeded. Phosphate preparations should not be sold under names which may lead the purchaser to believe that he is buying preparations of Tartaric Acid or Cream of Tartar.

“(b) Bakers, Self-raising Flour makers, and others using Acid Phosphates in the preparation of food, should either limit themselves

to Acid Phosphate of high commercial quality, containing a negligible amount of Calcium Sulphate and pure in other respects, or, if they use lower grades, should, in all cases, stipulate that Calcium Sulphate is not to exceed 10 per cent.

“(c) Vendors of Baking Powders containing Acid Phosphates should stipulate that the powders do not contain any higher proportion of Calcium Sulphate than would be contributed by a commercial Acid Sulphate containing 10 per cent of Calcium Sulphate. They should not receive or sell such Baking Powders under descriptions which may lead the purchaser to believe that he is buying preparations of Tartaric Acid or Cream of Tartar.

In view of the considerations set out above, it would seem desirable that Local Authorities under the Sale of Food and Drugs Acts should from time to time invite reports from the Public Analyst as to the proportions of Calcium Sulphate in a series of samples taken in the District of (a) Baking Powders which appear to contain Acid Phosphate of Lime, (b) Acid Phosphates supplied to Confectioners, etc., (c) Self-raising Flours. Attention could in this way be drawn to those articles which showed a conspicuous excess of this impurity and, where necessary, the institution of proceedings under Section 6 of the Sale of Food and Drugs Act, 1875, should be considered.”

So far back as 1903 I first drew attention, in my Annual Report, to this form of adulteration. During that year three samples of Self-raising Flour were found to contain .47, .56, 1.02 per cent. of Calcium Sulphate. Subsequently in 1908 I reported the results of a special investigation on this subject, and it may now be hoped that as a

result of Dr. Hamill's Report the use of "Sulphated" Baking Powders and the like may be discontinued. During this year 19 samples of Self-raising Flour and seven of Baking Powder have been analysed. Of these one sample of Baking Powder (No. 14a) was made from Acid Phosphate, containing upwards of 50 per cent. of Sulphate of Calcium, whilst five of the Self-Raising Flours contained Acid Phosphate, four being of satisfactory purity, but the fifth (No. 145) contained 1.24 per cent. of Sulphate, corresponding to 50 per cent. in the Phosphate used. This quantity was equal to an *excess* of 71 grains of Sulphate of Calcium in each pound of Flour. The vendor was prosecuted and fined £2 and costs.

TINNED FRUIT.

Of the 13 samples of tinned fruits 10 were pineapple, two raspberry, and one cherry; all except three contained tin varying in amount from traces to 0.9 grain per pound. There is much conflict of opinion as to the deleterious effect of small quantities of tin, hence I described five samples containing .4 grain per pound or upwards as "doubtful." It is most important that Acid Fruits should not be long stored in tins because it has been shown that the amount of tin dissolved increases with time. I should certainly condemn any sample containing over 1 grain per pound, and when above .4, or at most .5, grain per pound I think the vendor should be warned of the possible danger of ill-effects. Vendors can best provide against an excessive amount of tin, by stipulating for the use of well-tinned cans, and by purchasing only comparatively small stocks, certainly not more than sufficient to last till the next season's canned fruit is ready. Five of the samples contained traces of zinc up to $\frac{1}{4}$ grain per pound.

DRIED FRUITS.

Eleven samples were tested for metallic impurities and preservatives. None of these contained either lead or tin, but seven samples contained zinc in quantity varying from the merest trace up to .031 grain in a pound. This is doubtless derived from the trays on which the fruit is dried, but so small a quantity is quite negligible. The samples consisted of Apricots (5), Peaches (4), Plums (1), and Prunes (1); all except the last contained amounts of Sulphite corresponding to from 0.83 to 1.86 grain of Sulphurous Oxide in each pound. After consideration I felt that these samples must be described as "doubtful." The fact that all except one (and that the rather special case of Prunes) contained this antiseptic preservative suggests that some addition of this kind has been found necessary to prevent bacterial growth during the process of drying, although it would seem probable that if dried more quickly such a precaution could be dispensed with.

SAUSAGES.

In my last year's report I drew special attention to the prevalent practice of adding Boron compounds for the purpose of preservation, and expressed the opinion that a limit of 0.25 per cent. was sufficient to meet all trade requirements. I also quoted Dr. McFadden's report, in which he states that "even in this case it appears desirable to consider whether notification of the presence of the preservatives should not be given to the purchaser." During 1911 I have examined 27 official samples, of which no fewer than 16 contained Boric Acid as under:—

No. 65a	-	0.28 per cent.	No. 99	-	0.24 per cent.
66a	-	0.06	100	-	0.84
67a	-	1.02	101	-	0.21
68a	-	0.50	164	-	0.23
69a	-	0.69	165	-	0.16
95.	-	0.49	167	-	0.32
96.	-	0.075	172	-	0.36
98.	-	0.19	173	-	0.14

Nine of these samples contained more than the maximum of 0.25 per cent., Nos. 67a, 69a, and 100 being 4 times, $2\frac{1}{2}$ times, and $3\frac{1}{2}$ times that maximum respectively. One single sausage of No. 67a would contain very nearly 12 grains of Boric Acid, the British Pharmacopœia giving the dose at 5 to 15 grains, hence one sausage would contain very nearly a *maximum* medicinal dose. In my opinion no purchaser of "sausages" would expect to receive a medicinal dose of any drug at the same time. Apart from this consideration, there is a serious objection to the use of such a preservative, viz., if used in considerable proportion it possesses the power of obscuring the decomposition which still goes on in the food, and thus becomes a source of danger of ptomaine poisoning.

DRUGS.

Twenty-five official and 14 unofficial samples of drugs were taken, viz., Glycerine 12, Compound Liquorice Powders 13, and Gregory's Powder 14. Of these only 1 could be described as adulterated; this was an unofficial sample of Gregory's Powder, and had been prepared with Magnesium Carbonate in place of Magnesia; four other samples of Gregory's Powder contained proportions of Carbonate of Magnesium varying from 5.57 to 8.0 per cent., indicating the necessity of greater care in storage, this powder possessing the property of

absorbing moisture and Carbon Dioxide from the air. The 12 samples of Glycerine were all pure, and although 2 samples of Compound Liquorice Powder were of very poor quality, none could be certified as adulterated.

I am, Mr. Mayor and Gentlemen,

Your obedient servant,

R. A. CRIPPS.